**3GPP TSG- Meeting #**

**Orlando, Florida, USA,**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  |  | **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)*.* | | | | | | | | |
|  | | | | | | | | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network | **X** | Core Network | **X** |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** |  | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** |  | | | | | | | | | |
| ***Source to TSG:*** | SA5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** |  | | | | |  | ***Date:*** | | |  |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***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 Attribute properties like 4.4.1, 5.4.1, 6.4.1, the defaultValue is not following the specification in TS32.156 clause 5.2.1. Some free style of defining the default value, which is confusion and error prone. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Correct the definition of default value in attribute properties | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Incorrect specification leads to confusion and incorrect implementation. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 4.4.1, 5.4.1, 6.4.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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's revision history:*** | | Revision of S5-246457 | | | | | | | | |

***Start of change***

### 4.4.1 Attribute properties

| Attribute Name | Documentation and Allowed Values | Properties |
| --- | --- | --- |
| NRCellDU.administrativeState | It indicates the administrative state of the NRCellDU. It describes the permission to use or prohibition against using the cell, imposed through the OAM services.  allowedValues: LOCKED, SHUTTING DOWN, UNLOCKED.  The meaning of these values is as defined in ITU‑T Recommendation X.731 [18].  See Annex A for Relation between the "Pre-operation state of the gNB-DU Cell" and administrative state relevant in case of 2-split and 3-split deployment scenarios. | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: LOCKED  isNullable: False |
| operationalState | It indicates the operational state of the NRCellDU instance. It describes whether the resource is installed and partially or fully operable (Enabled) or the resource is not installed or not operable (Disabled).  allowedValues: ENABLED, DISABLED. | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| cellState | It indicates the usage state of the NRCellDU instance. It describes whether the cell is not currently in use (Idle), or currently in use but not configured to carry traffic (Inactive) or is currently in use and is configured to carry traffic (Active).  The Inactive and Active definitions are in accordance with TS 38.401 [4]:  "Inactive: the cell is known by both the gNB-DU and the gNB-CU. The cell shall not serve UEs;  Active: the cell is known by both the gNB-DU and the gNB-CU. The cell should be able to serve UEs."  allowedValues: IDLE, INACTIVE, ACTIVE. | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| arfcnDL | NR Absolute Radio Frequency Channel Number (NR-ARFCN) for downlink  allowedValues:  See TS 38.104 [12] subclause 5.4.2. Note that allowed values of NR-ARFCN are specified for each band in subclause 5.4.2.3. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| arfcnUL | NR Absolute Radio Frequency Channel Number (NR-ARFCN) for uplink  allowedValues:  See TS 38.104 [12] subclause 5.4.2. Note that allowed values of NR-ARFCN are specified for each band in subclause 5.4.2.3. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| arfcnSUL | NR Absolute Radio Frequency Channel Number (NR-ARFCN) for supplementary uplink  allowedValues:  See TS 38.104 [12] subclause 5.4.2. Note that allowed values of NR-ARFCN are specified for each band in subclause 5.4.2.3. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| beamAzimuth | The azimuth of a beam transmission, which means the horizontal beamforming pointing angle (beam peak direction) in the (Phi) φ-axis in 1/10th degree resolution. See subclauses 3.2 in TS 38.104 [12] and 7.3 in TS 38.901 [53] as well as TS 28.662 [11]. The pointing angle is the direction equal to the geometric centre of the half-power contour of the beam relative to the reference plane. Zero degree implies explicit antenna bearing (boresight). Positive angle implies clockwise from the antenna bearing.  allowedValues: [-1800 ..1800] 0.1 degree | type: Integer  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| beamHorizWidth | The Horizontal beamWidth of a beam transmission, which means the horizontal beamforming half-power (3dB down) beamwidth in the (Phi) φ-axis in 1/10th degree resolution. See subclauses 3.2 in TS 38.104 [12] and 7.3 in TS 38.901 [53].  allowedValues: [0..3599] 0.1 degree | type: Integer  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| beamIndex | Index of the beam.  For example, please see subclause 6.3.2 of TS 38.331 [54] where the ssb-Index in the rsIndexResults element of MeasResultNR is defined. | type: Integer  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| beamTilt | The tilt of a beam transmission, which means the vertical beamforming pointing angle (beam peak direction) in the (Theta) θ-axis in 1/10th degree resolution. See subclauses 3.2 in TS 38.104 [12] and 7.3 in TS 38.901 [53] as well as TS 28.662 [11]. The pointing angle is the direction equal to the geometric centre of the half-power contour of the beam relative to the reference plane. Positive value implies downtilt.  allowedValues: [-900..900] 0.1 degree | type: Integer  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| beamType | The type of the beam.  allowedValues: "SSB-BEAM" | type: ENUM  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| beamVertWidth | The Vertical beamWidth of a beam transmission, which means the vertical beamforming half-power (3dB down) beamwidth in the (Theta) θ-axis in 1/10th degree resolution. See subclauses 3.2 in TS 38.104 [12] and 7.3 in TS 38.901 [53].  allowedValues: [0...1800] 0.1 degree | type: Integer  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| bSChannelBwDL | BS Channel BW in MHz. for downlink  allowedValues:  See BS Channel BW in TS 38.104 [12], subclause 5.3.​ | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| bSChannelBwUL | BS Channel BW in MHz.for uplink  allowedValues:  See BS Channel BW in TS 38.104 [12], subclause 5.3.​ | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| bSChannelBwSUL | BS Channel BW in MHz.for supplementary uplink  allowedValues:  See BS Channel BW in TS 38.104 [12], subclause 5.3.​ | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| configuredMaxTxPower | This is the maximum transmission power in milliwatts (mW) at the antenna port for all downlink channels, used simultaneously in a cell, added together.  allowedValues: N/A | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| configuredMaxTxEIRP | This is the maximum emitted isotropic radiated power (EIRP) in dBm for all downlink channels, used simultaneously in a cell, added together [12].  allowedValues: N/A | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| coverageShape | Identifies the sector carrier coverage shape described by the envelope of the contained SSB beams. The coverage shape is implementation dependent.  allowedValues: 0 : 65535 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| digitalTilt | Digitally-controlled tilt through beamforming. It represents the vertical pointing direction of the antenna relative to the antenna bore sight, representing the total non-mechanical vertical tilt of the selected coverageShape. Positive value gives downwards tilt and negative value gives upwards tilt.  allowedValues: [-900..900] 0.1 degree | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| digitalAzimuth | Digitally-controlled azimuth through beamforming. It represents the horizontal pointing direction of the antenna relative to the antenna bore sight, representing the total non-mechanical horizontal pan of the selected coverageShape. Positive value gives azimuth to the right and negative value gives an azimuth to the left.  allowedValues: [-1800 ..1800] 0.1 degree | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| cyclicPrefix | Cyclic prefix as defined in TS 38.211 [32], subclause 4.2.  allowedValues:  NORMAL, EXTENDED. | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| localAddress | This parameter specifies the localAddress used for initialization of the underlying transport.  The AddressWithVlan <dataType> is defined in clause 4.3.64. | type: AddressWithVlan  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| AddressWithVlan.iPaddress | This parameter specifies the IP address used for initialization of the underlying transport.  IP address can be an IPv4 address (See RFC 791 [37]) or an IPv6 address (See RFC 2373 [38]). | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| AddressWithVlan. vlanId | This parameter specifies the local VLAN Id (See IEEE 802.1Q [39]) used for initialization of the underlying transport. | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| remoteAddress | Remote address including IP address used for initialization of the underlying transport.  IP address can be an IPv4 address (See RFC 791 [37]) or an IPv6 address (See RFC 2373 [38]). | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| gNBId | It identifies a gNB within a PLMN. The gNB ID is part of the NR Cell Identifier (NCI) of the gNB cells.  See "gNB Identifier (gNB ID)" of subclause 8.2 of TS 38.300 [3]. See "Global gNB ID" in subclause 9.3.1.6 of TS 38.413 [5].  allowedValues: 0..4294967295 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| gNBIdLength | This indicates the number of bits for encoding the gNB ID. See "Global gNB ID" in subclause 9.3.1.6 of TS 38.413 [5].  allowedValues: 22 .. 32. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| gNB­DUId | It uniquely identifies the DU at least within a gNB-CU. See 'gNB-DU ID' in subclause 9.3.1.9 of 3GPP TS 38.473 [8].  allowedValues: 0..236-1 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| gNB­CUUPId | It uniquely identifies the gNB-CU-UP at least within a gNB-CU-CP. See 'gNB-CU-UP ID' in subclause 9.3.1.15 of 3GPP TS 38.463 [48].  allowedValues: 0..236-1 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| gNBCUName | It identifies the Central Entity of a NR node, see subclause 9.2.1.4 of 3GPP TS 38.473 [8].  allowedValues: Not applicable | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| gNBDUName | It identifies the Distributed Entity of a NR node, see subclause 9.2.1.5 of 3GPP TS 38.473 [8].  allowedValues: Not applicable | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| cellLocalId | It identifies a NR cell of a gNB.  It, together with the gNB Identifier (using gNBId of the parent GNBCUCPFunction or GNBDUFunction or OperatorDU (for MOCN network sharing scenario) or ExternalCUCPFunction), identifies a NR cell within a PLMN. This is the NR Cell Identity (NCI). See subclause 8.2 of TS 38.300 [3].  The NCI can be constructed by encoding the gNB Identifier using gNBId (of the parent GNBCUCPFunction or GNBDUFunction or OperatorDU (for MOCN network sharing scenario) or ExternalCUCPFunction) and cellLocalId where the gNB Identifier field is of length specified by gNBIdLength (of the parent GNBCUCPFunction or GNBDUFunction or ExternalCUCPFunction). See "Global gNB ID" in subclause 9.3.1.6 of TS 38.413 [5].  The NR Cell Global identifier (NCGI) is constructed from the PLMN identity the cell belongs to and the NR Cell Identifier (NCI) of the cell.  See relation between NCI and NCGI subclause 8.2 of TS 38.300 [3].  allowedValues: Not applicable | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| cAGIdList | It identifies a CAG list containing up to 12 CAG-identifiers per PLMN Identity, see TS 38.331 [54].  CAG is used for the PNI-NPNs to prevent UE(s), which are not allowed to access the NPN via the associated cell(s), from automatically selecting and accessing the associated CAG cell(s).  CAG ID is used to combine with PLMN ID to identify a PNI-NPN.  allowedValues: BIT STRING (SIZE (32)). | type: String  multiplicity: 1..12  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| nIDList | It identifies a list of NIDs containing up to 12 NIDs per PLMN Identity, see TS 38.331 [54]. NID is used to combine with PLMN ID to identify an SNPN.  allowedValues: BIT STRING (SIZE (44)). | type: String  multiplicity: 1..12  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| nRPCI | This holds the Physical Cell Identity (PCI) of the NR cell.  allowedValues:  See 3GPP TS 36.211 subclause 6.11 for legal values of pci. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| nRTAC | This holds the identity of the common Tracking Area Code for the PLMNs.  allowedValues:  a) It is the TAC or Extended-TAC.  b) A cell can only broadcast one TAC or Extended-TAC. See TS 36.300, subclause 10.1.7 (PLMNID and TAC relation).  c) TAC is defined in subclause 19.4.2.3 of 3GPP TS 23.003  [13] and Extended-TAC is defined in subclause 9.3.1.29 of 3GPP TS 38.473 [8].  d) For a 5G SA (Stand Alone), it has a non-null value. | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| GNBCUCPFunction.pLMNId | It specifies the PLMN identifier to be used as part of the global RAN node identity.  allowedValues: Not applicable. | Type: PLMNId  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| GNBCUUPFunction.pLMNIdList | This is a list of PLMN identifiers. It defines from which set of PLMNs an UE must have as its serving PLMN to be allowed to use the GNB-CU-UP.  allowedValues: Not applicable. | type: PLMNId  multiplicity: 1..12  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| NRCellCU.pLMNInfoList | It defines which PLMNs that can be served by the NR cell, and which S-NSSAIs can be supported by the NR cell for corresponding PLMN in case of network slicing feature is supported. The pLMNId of the first entry of the list is the PLMNId used to construct the nCGI for the NR cell.  allowedValues: Not applicable. | type: PLMNInfo  multiplicity: 1..\*  isOrdered: True  isUnique: True  defaultValue: None  isNullable: False |
| NRCellDU.pLMNInfoList | It defines which PLMNs that can be served by the NR cell, and which S-NSSAs can be supported by the NR cell for corresponding PLMN in case of network slicing feature is supported. The pLMNId of the first entry of the list is the PLMNId used to construct the nCGI for the NR cell.  allowedValues: Not applicable. | type: PLMNInfo  multiplicity: 1..\*  isOrdered: True  isUnique: True  defaultValue: None  isNullable: False |
| nPNIdentityList | It defines which NPNs that can be served by the NR cell, and which CAG IDs or NIDs can be supported by the NR cell for corresponding PNI-NPN or SNPN in case of the cell is NPN-only cell.  (NPN-Identity referring to TS 38.331 [54])  allowedValues: Not applicable. | type: NpnId  multiplicity: 1..\*  isOrdered: True  isUnique: True  defaultValue: None  isNullable: False |
| ExternalNRCellCU.pLMNIdList | It defines which PLMNs that are assumed to be served by the NR Cell in another gNB-CU-CP. This list is either updated by the managed element itself (e.g. due to ANR, signalling over Xn etc) or by consumer over the standard interface.  allowedValues: Not applicable. | Type: PLMNId  multiplicity: 1..12  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| rRMPolicyMemberList | It represents the list of RRMPolicyMember (s) that the managed object is supporting. A RRMPolicyMember <<dataType>> include the PLMNId <<dataType>> and S-NSSAI <<dataType>>.  allowedValues: N/A | type: RRMPolicyMember  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| resourceType | The resource type of interest for an RRM Policy.  allowedValues:  PRB, PRB\_UL, PRB\_DL (for NRCellDU, GNBDUFunction)  RRC\_CONNECTED\_USERS (for NRCellCU, GNBCUCPFunction)  DRB (for GNBCUUPFunction)  See NOTE 2and NOTE 4 | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| sNSSAIList | It represents the list of S-NSSAI the managed object is supporting. The S-NSSAI is defined in 3GPP TS 23.003 [13].  allowedValues: See 3GPP TS 23.003 [13] | type: S-NSSAI  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| sST | This attribute specifies the Slice/Service type (SST) of the network slice.  allowedValues: See clause 5.15.2 of 3GPP TS 23.501 [2]. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| sD | This attribute specifies the Slice Differentiator (SD), which is optional information that complements the slice/service type(s) to differentiate amongst multiple Network Slices.  Pattern: '^[A-Fa-f0-9]{6}$'  See clause 5.15.2 of 3GPP TS 23.501 [2].  allowedValues: N/A | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| rRMPolicyMaxRatio | This attribute specifies the maximum percentage of radio resources that can be used by the associated rRMPolicyMemberList. The maximum percentage of radio resources include at least one of the shared resources, prioritized resources and dedicated resources.  For the same resource type, the sum of the ‘rRMPolicyMaxRatio’ values assigned to all RRMPolicyRatio(s) name-contained by same ManagedEntity can be greater than 100.  allowedValues:  0 : 100 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: 100  isNullable: False |
| rRMPolicyMinRatio | This attribute specifies the minimum percentage of radio resources that can be used by the associated rRMPolicyMemberList. The minimum percentage of radio resources including at least one of prioritized resources and dedicated resources.    For the same resource type, the sum of the ‘rRMPolicyMinRatio’ values assigned to all RRMPolicyRatio(s) name-contained by same ManagedEntity shall be less than or equal to 100.  allowedValues:  0 : 100  NOTE: Void. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: 0  isNullable: False |
| rRMPolicyDedicatedRatio | This attribute specifies the percentage of radio resource that dedicatedly used by the associated rRMPolicyMemberList.  For the same resource type, the sum of the ‘rRMPolicyDedicatedRatio’ values assigned to all RRMPolicyRatio(s) name-contained by same ManagedEntity shall be less than or equal to 100.  allowedValues:0 : 100 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: 0  isNullable: False |
| subCarrierSpacing | Subcarrier spacing configuration for a BWP. See subclause 5 in TS 38.104 [12].  allowedValues: [15, 30, 60, 120] depending on the frequency range FR1 or FR2. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| txDirection | Indicates if the transmission direction is downlink (DL), uplink (UL) or both downlink and uplink (DL and UL).  allowedValues:  DL, UL, DL\_AND\_UL | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| bwpContext | It identifies whether the object is used for downlink, uplink or supplementary uplink.  allowedValues:  DL, UL, SUL | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| isInitialBwp | It identifies whether the object is used for initial or other BWP.  allowedValues:  INITIAL, OTHER | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| startRB | Offset in common resource blocks to common resource block 0 for the applicable subcarrier spacing for a BWP. This corresponds to N\_BWP\_start, see subclause 4.4.5 in TS 38.211 [32].  allowedValues:  0 to N\_grid\_size – 1, where N\_grid\_size equals the number of resource blocks for the BS channel bandwidth, given the subcarrier spacing of the BWP. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| numberOfRBs | Number of physical resource blocks for a BWP. This corresponds to N\_BWP\_size, see subclause 4.4.5 in TS 38.211 [32].  allowedValues:  1 to N\_grid\_size – startRB of the BWP. Se startRB for definition of N\_grid\_size. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| nRTCI | This is the Target NR Cell Identifier. It consists of NR Cell Identifier (NCI) and Physical Cell Identifier of the target NR cell (nRPCI).  The NRRelation.nRTCI identifies the target cell from the perspective of the NRCell, the name-containing instance of the subject NRCellCU instance.  allowedValues: Not applicable. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| adjacentNRCellRef | This attribute contains the DN of an adjacentNRCell (NRCellCU or ExternalNRCellCU)  allowedValues: Not applicable. | type: DN  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| ssbFrequency | Indicates cell defining SSB frequency domain position  Frequency of the cell defining SSB transmission. The frequency provided in this attribute identifies the position of resource element RE=#0 (subcarrier #0) of resource block RB#10 of the SS block. The frequency must be positioned on the NR global frequency raster, as defined in TS 38.101-1 [42] subclause 5.4.2. and within bSChannelBwDL.  allowedValues: 0..3279165 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| nRFrequencyRef | This attribute contains the DN of the referenced NRFrequency.  allowedValues: Not applicable. | type: DN  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| nRrFreqRelationRef | This attribute contains the DN of the referenced NRFreqRelation.  allowedValues: Not applicable. | type: DN  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| nRSectorCarrierRef | This attribute contains the DN of the referenced NRSectorCarrier.  allowedValues: Not applicable. | type: DN  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| bWPRef | This attribute contains a list of referenced BWPs.  allowedValues: DN of a BWP. | type: DN  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| sectorEquipmentFunctionRef | This attribute contains the DN of the referenced SectorEquipmentFunction.  allowedValues: Not applicable. | type: DN  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| offsetMO | It is a list of offset values applicable to all measured cells with reference signal(s) indicated in this *MeasObjectNR*. See offsetMO of subclause 5.5.4 of TS 38.331 [54].  allowedValues: Not applicable. | type: QOffsetRangeList  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| cellIndividualOffset | It is a list of offset values for the neighbour cell. Used when UE is in connected mode. The unit is 1dB. It is defined for rsrpOffsetSSB, rsrqOffsetSSB, sinrOffsetSSB, rsrpOffsetCSI-RS, rsrqOffsetCSI-RS and sinrOffsetCSI-RS. See TS 38.331 [54].  allowedValues: Not applicable. | type: Integer  multiplicity: 6  isOrdered: True  isUnique: False  defaultValue: 0  isNullable: False |
| blockListEntry | It specifies a list of PCI (physical cell identity) that are exclude-listed in EUTRAN measurements as described in 3GPP TS 38.331 [54].  allowedValues: { 0…1007 } | type: Integer  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| blockListEntryIdleMode | It specifies a list of PCI (physical cell identity) that are exclude-listed in SIB4 and SIB5.  allowedValues: { 0…1007 } | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| cellReselectionPriority | It is the absolute priority of the carrier frequency used by the cell reselection procedure. See *CellReselectionPriority* IE in TS 38.331 [54].  It corresponds to the parameter priority in 3GPP TS 38.304 [49].  Value 0 means lowest priority. The UE behaviour when no value is entered is specified in subclause 5.2.4.1 of 3GPP TS 38.304 [49].  The value must not already used by other RAT, i.e. equal priorities between RATs are not supported.  allowedValues: N/A | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: 0  isNullable: False |
| cellReselectionSubPriority | It indicates a fractional value to be added to the value of cellReselectionPriority to obtain the absolute priority of the concerned carrier frequency for E-UTRA and NR. See *CellReselectionSubPriority* IE in TS 38.331 [54].  allowedValues: { 0.2, 0.4, 0.6, 0.8 }. | type: Real  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| pMax | It calculates the parameter Pcompensation (defined in 3GPP TS 38.304 [49]), at cell reselection to an Cell. Its unit is 1 dBm. It corresponds to parameter PEMAX in 3GPP TS 38.101-1 [42].  allowedValues: { -30..33 }. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| qOffsetFreq | It is the frequency specific offset applied when evaluating candidates for cell reselection.See TS 38.331 [54]. Its unit is 1 dB.  allowedValues:  { -24, -22, -20, -18, -16, -14, -12, -10, -8, -6, -5, -4, -3, -2, -1, 0, 1, 2, 3, 4, 5, 6, 8, 10, 12, 14, 16, 20, 22, 24 } | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: 0  isNullable: False |
| qOffsetRangeList | It is used to indicate a cell, beam or measurement object specific offset to be applied when evaluating candidates for cell re-selection or when evaluating triggering conditions for measurement reporting. The value is in dB. Value dB-24 corresponds to -24 dB, dB-22 corresponds to -22 dB and so on.  This is a list of enum values representing, in sequence: rsrpOffsetSSB, rsrqOffsetSSB, sinrOffsetSSB, rsrpOffsetCSI-RS, rsrqOffsetCSI-RS, sinrOffsetCSI-RS.  See Q-OffsetRangeList in subclause of subclause 6.3.2 of TS 38.331 [54].  allowedValues:  { -24, -22, -20, -18, -16, -14, -12, -10, -8, -6, -5, -4, -3, -2, -1, 0, 1, 2, 3, 4, 5, 6, 8, 10, 12, 14, 16, 20, 22, 24 } | type: ENUM  multiplicity: 6  isOrdered: True  isUnique: False  defaultValue: 0  isNullable: False |
| qQualMin | It indicates the minimum required quality level in the cell (dB). See qQualMin in TS 38.304 [49]. Unit is 1 dB.  Value 0 means that it is not sent and UE applies in such case the (default) value of negative infinity for Qqualmin. Sent in SIB3 or SIB5.  allowedValues: { -34..-3, 0 } | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| qRxLevMin | It indicates the required minimum received Reference Symbol Received Power (RSRP) level in the (E-UTRA) frequency for cell reselection. It corresponds to Qrxlevmin defined in 3GPP TS 38.304 [49]. It is broadcast in SIB3 or SIB5, depending on whether the related frequency is intra- or inter-frequency. Its unit is 1 dBm and resolution is 2.  allowedValues: { -140..-44 }. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| threshXHighP | This specifies the Srxlev threshold (in dB) used by the UE when reselecting towards a higher priority RAT/ frequency than the current serving frequency. Each frequency of NR and E-UTRAN might have a specific threshold. It corresponds to the ThreshX, HighPin 3GPP TS 38.304 [49]. Its unit is 1 dB and resolution is 2**.**  allowedValues: { 0..62 } | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| threshXHighQ | This specifies the Squal threshold (in dB) used by the UE when reselecting towards a higher priority RAT/ frequency than the current serving frequency. Each frequency of NR and E-UTRAN might have a specific threshold. It corresponds to the ThreshX, HighQ in TS 38.304 [49]. Its unit is 1 dB.  allowedValues: { 0..31 } | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| threshXLowP | This specifies the Srxlev threshold (in dB) used by the UE when reselecting towards a lower priority RAT/ frequency than the current serving frequency. Each frequency of NR might have a specific threshold. It corresponds to ThreshX, LowP in TS 38.304 [49]. Its unit is 1 dB. Its resolution is 2.  allowedValues: { 0..62 } | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| threshXLowQ | This specifies the Squal threshold (in dB) used by the UE when reselecting towards a lower priority RAT/ frequency than the current serving frequency. Each frequency of NR might have a specific threshold. It corresponds to ThreshX, LowQ in TS 38.304 [49]. Its unit is 1 dB.  allowedValues: {0..31}. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| tReselectionNr | It is the cell reselection timer and corresponds to parameter TreselectionRAT for NR defined in 38.331 [54]. Its unit is in seconds.   allowedValues: {0..7}. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| tReselectionNRSfHigh | The attribute t-ReselectionNr (a parameter TreselectionNR in TS 38.304 [49]) is multiplied with this factor if the UE is in high mobility state. It corresponds to the parameter Speed dependent ScalingFactor for TreselectionNr for medium high state in 3GPP TS 38.304 [49]. The unit is one %.  Value mapping: 25 = 0.25 50 = 0.5 75 = 0.75 100 = 1.0  allowedValues: {25, 50, 75, 100}. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| tReselectionNRSfMedium | The attribute t-ReselectionNR (a parameter "TreselectionNR in TS 38.304 [49]”) is multiplied with this factor if the UE is in medium mobility state. It corresponds to the parameter Speed dependent ScalingFactor for TreselectionNr for medium mobility state in 3GPP TS 38.304 [49]. Its unit is one %.  Value mapping: 25 = 0.25 50 = 0.5 75 = 0.75 100 = 1.0   allowedValues: {25, 50, 75, 100}. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| absoluteFrequencySSB | The absolute frequency applicable for a downlink NR carrier frequency associated with the SSB.  allowedValues: {0.. 3279165}. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| sSBSubCarrierSpacing | This SSB is used for for synchronization. See subclause 5 in TS 38.104 [12]. Its units are in kHz.  allowedValues: {15, 30, 120, 240}.  Note that the allowed values of SSB used for representing data, by e.g. a BWP, are: 15, 30, 60 and 120 in units of kHz. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| multiFrequencyBandListNR | It is a list of additional frequency bands the frequency belongs to. The list is automatically set by the gNB.  allowedValues: {1..256 } | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| ssbPeriodicity | Indicates cell defined SSB periodicity in number of subframes (ms).  The SSB periodicity in msec is used for the rate matching purpose.  allowedValues: 5, 10, 20, 40, 80, 160. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| ssbOffset   |  | | --- | |  | | Indicates cell defining SSB time domain position. Defined as the offset of the measurement window, in number of subframes (ms), in which to receive SS/PBCH blocks, where allowed values depend on the ssbPeriodicity.  allowedValues:  ssbPeriodicity5 ms 0..4,  ssbPeriodicity10 ms 0..9,  ssbPeriodicity20 ms 0..19,  ssbPeriodicity40 ms 0..39,  ssbPeriodicity80 ms 0..79,  ssbPeriodicity160 ms 0..159. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| ssbDuration   |  | | --- | |  | | Duration of the measurement window in which to receive SS/PBCH blocks. It is given in number of subframes (ms) (see 38.213 [41], clause 4.1.  allowedValues: 1, 2, 3, 4, 5. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| rimRSMonitoringStartTime | This field configures the time when the gNB attempts to start RIM-RS monitoring.  allowedValues: Not applicable. | type: DateTime  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| rimRSMonitoringStopTime | This field configures the time when the gNB stops RIM-RS monitoring.  allowedValues: Not applicable. | type: DateTime multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| mappingSetIDBackhaulAddressList | The attribute specifies a list of mappingSetIDBackhaulAddress which is defined as a datatype (see clause 4.3.47). Which is used to retrieve the backhaul address of the victim set.  allowedValues: Not applicable | type: MappingSetIDBackhaulAddress  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| backhaulAddress | The attribute specifies backhaulAddress which is defined as a datatype (see clause 4.3.48).  allowedValues: Not applicable | type: BackhaulAddress  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| setID | This specifies the set ID of a victim Set (RIM-RS1 Set) or aggressor Set (RIM-RS2 set). (See subclause 7.4.1.6 in TS 38.211 [32]).  allowedValues:  The bit length of the set ID is maximum 22bit.  See NOTE 10. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| tAI | Indicates the TAI (see subclause 9.3.3.11 in TS 38.413[5]), including pLMNId ID and nRTAC. allowedValues: Not applicable | type: TAI  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| isRemoveAllowed | This indicates if the subject NRCellRelation can be removed (deleted) or not.  If TRUE, the subject NRCellRelation instance can be removed (deleted).  If FALSE, the subject NRCellRelation instance shall not be removed (deleted) by any entity but an MnS consumer.  allowedValues: TRUE,FALSE | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| isHOAllowed | This indicates if HO is allowed or prohibited.  If TRUE, handover is allowed from source cell to target cell. The source cell is identified by the name-containing NRCellCU of the NRCellRelation that contains the isHOAllowed. The target cell is referenced by the NRCellRelation that contains this isHOAllowed.  If FALSE, handover shall not be allowed.  allowedValues: TRUE,FALSE | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| intrasystemANRManagementSwitch | This attribute determines whether the intra-system ANR function is activated or deactivated.  If “TRUE”, the intra-system ANR function may add or remove intra NG-RAN Neighbour Relations, i.e. add or remove NRCellRelation instances from NRCellCU of this GNBCUCPFunction. If “FALSE”, the intra-system ANR Function must not add or remove Neighbour Relations, i.e. add or remove NRCellRelation instances from NRCellCU of this GNBCUCPFunction.  allowedValues: TRUE,FALSE | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| intersystemANRManagementSwitch | This attribute determines whether the inter-system ANR function is activated or deactivated.  If “TRUE”, the inter-system ANR function may add or remove inter-system Neighbour Relations, i.e. add or remove EUtranRelation instances from NRCellCU of this GNBCUCPFunction. If “FALSE”, the inter-system ANR Function must not add or remove inter-system Neighbour Relations, i.e. add or remove EUtranRelation instances from NRCellCU of this GNBCUCPFunction.  allowedValues: TRUE,FALSE | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| desSwitch | This attribute determines whether the Distributed SON energy saving function is enabled or disabled.  allowedValues: TRUE,FALSE | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| cesSwitch | This attribute determines whether the Centralized SON energy saving function is enabled or disabled.  allowedValues: TRUE,FALSE | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| energySavingControl | This attribute allows the Centralized SON energy saving function to initiate energy saving activation or deactivation.  allowedValues: TO\_BE\_ENERGY\_SAVING, TO\_BE\_NOT\_ENERGY\_SAVING | type: ENUM  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| energySavingState | Specifies the status regarding the energy saving in the cell.  If the value of energySavingControl is toBeEnergySaving, then it shall be tried to achieve the value isEnergySaving for the energySavingState.  If the value of energySavingControl is toBeNotEnergySaving, then it shall be tried to achieve the value isNotEnergySaving for the energySavingState.  allowedValues: IS\_NOT\_ENERGY\_SAVING, IS\_ENERGY\_SAVING. | type: ENUM  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| intraRatEsActivationOriginalCellLoadParameters | This attribute is relevant, if the cell acts as an original cell.  This attribute indicates the traffic load threshold and the time duration, which are used by distributed ES algorithms to allow a cell to enter the energySaving state. The time duration indicates how long the load needs to have been below the threshold.  allowedValues:  loadThreshold: Integer 0..100 (Percentage of PRB usage, see 3GPP TS 36.314 [13])  timeDuration: Integer (in unit of seconds) | type: LoadTimeThreshold  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| intraRatEsActivationCandidateCellsLoadParameters | This attribute is relevant, if the cell acts as a candidate cell.  This attribute indicates the traffic load threshold and the time duration, which are used by distributed ES algorithms level to allow a n ‘original’ cell to enter the energySaving state. Threshold and duration are applied to the candidate cell(s) which will provides coverage backup of an original cell when it is in the energySaving state. The threshold applies in the same way for a candidate cell, no matter for which original cell it will provide backup coverage.  The time duration indicates how long the traffic in the candidate cell needs to have been below the threshold before any original cells which will be provided backup coverage by the candidate cell enters energy saving state.  allowedValues: loadThreshold: Integer 0..100 (Percentage of PRB usage (see 3GPP TS 36.314 [13]) )  timeDuration: Integer (in unit of seconds) | type: LoadTimeThreshold  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| intraRatEsDeactivationCandidateCellsLoadParameters | This attribute is relevant, if the cell acts as a candidate cell.  This attribute indicates the traffic load threshold and the time duration which is used by distributed ES algorithms to allow a cell to leave the energySaving state. Threshold and time duration are applied to the candidate cell when it which provides coverage backup for the cell in energySaving state. The threshold applies in the same way for a candidate cell, no matter for which original cell it provides backup coverage.  The time duration indicates how long the traffic in the candidate cell needs to have been above the threshold to wake up one or more original cells which have been provided backup coverage by the candidate cell.  allowedValues: loadThreshold: Integer 0..100 (Percentage of PRB usage (see 3GPP TS 36.314 [13]) )  timeDuration: Integer (in unit of seconds) | type: LoadTimeThreshold  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| LoadTimeThreshold.threshold | This attribute indicates a traffic load threshold.  allowedValues: Integer | type: Integer  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| LoadTimeThreshold.timeDuration | This attribute indicates a duration in unit of seconds.  allowedValues: Integer | type: Integer  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| esNotAllowedTimePeriod | This attribute can be used to prevent a cell entering energySaving state.  This attribute indicates a list of time periods during which inter-RAT energy saving is not allowed.  Time period is valid on the specified day and time of every week.  allowedValues: N/A | type: EsNotAllowedTimePeriod  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| EsNotAllowedTimePeriod.startTime | This attribute indicates a time of day as a start time for a period.  Time of day is in HH:MM or H:MM 24-hour format per UTC time zone.  Examples, 20:15:00, 20:15:00-08:00 (for 8 hours behind UTC).  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| EsNotAllowedTimePeriod.endTime | This attribute indicates a valid time of day as an end time for a period. The endTime should be later than startTime.  Time of day is in HH:MM or H:MM 24-hour format per UTC time zone.  Examples, 20:15:00, 20:15:00-08:00 (for 8 hours behind UTC).  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| EsNotAllowedTimePeriod.daysOfWeek | This attribute indicates a day in a week.  allowedValues: MONDAY, TUESDAY, WEDNESDAY, THURSDAY, FRIDAY, SATURDAY, SUNDAY | type: <<enumeration>>  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| interRatEsActivationOriginalCellParameters | This attribute is relevant, if the cell acts as an original cell.  This attribute indicates the traffic load threshold and the time duration, which are used by distributed inter-RAT ES algorithms to allow an original cell to enter the energySaving state. The time duration indicates how long the traffic load (both for UL and DL) needs to have been below the threshold.  In case the original cell is an EUTRAN cell, the load information refers to Composite Available Capacity Group IE (see 3GPP TS 36.413 [12] Annex B.1.5) and the following applies:  Load = (100 - ‘Capacity Value’ ) \* ‘Cell Capacity Class Value’, where ‘Capacity Value’ and ‘Cell Capacity Class Value’ are defined in 3GPP TS 36.423 [7].  In case the original cell is a UTRAN cell, the load information refers to Cell Load Information Group IE (see 3GPP TS 36.413 [12] Annex B.1.5) and the following applies:  Load= ‘Load Value’ \* ‘Cell Capacity Class Value’, where ‘Load Value’ and ‘Cell Capacity Class Value’ are defined in 3GPP TS 25.413 [19].  If the ‘Cell Capacity Class Value’ is not known, then ‘Cell Capacity Class Value’ should be set to 1 when calculating the load, and the load threshold should be set in range of 0..100.  allowedValues:  loadThreshold: Integer 0..10000  timeDuration: Integer 0..900 (in unit of seconds) | type: LoadTimeThreshold  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| interRatEsActivationCandidateCellParameters | This attribute is relevant, if the cell acts as a candidate cell.  This attribute indicates the traffic load threshold and the time duration, which are used by distributed inter-RAT ES algorithms to allow an original cell to enter the energySaving state. Threshold and time duration are applied to the candidate cell(s) which will provides coverage backup of an original cell when it is in the energySaving state.  The time duration indicates how long the traffic load (both for UL and DL) in the candidate cell needs to have been below the threshold before any original cells which will be provided backup coverage by the candidate cell enters energySaving state.  In case the candidate cell is a UTRAN or GERAN cell, the load information refers to Cell Load Information Group IE(see 3GPP TS 36.413 [12] Annex B.1.5) and the following applies:  Load= ‘Load Value’ \* ‘Cell Capacity Class Value’, where ‘Load Value’ and ‘Cell Capacity Class Value’ are defined in 3GPP TS 25.413 [19] (for UTRAN) / TS 48.008 [20] (for GERAN).  If the ‘Cell Capacity Class Value’ is not known, then ‘Cell Capacity Class Value’ should be set to 1 when calculating the load, and the load threshold should be set in range of 0..100.  allowedValues:  loadThreshold: Integer 0..10000  timeDuration: Integer 0..900 (in unit of seconds) | type: LoadTimeThreshold  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| interRatEsDeactivationCandidateCellParameters | This attribute is relevant, if the cell acts as a candidate cell.  This attribute indicates the traffic load threshold and the time duration which is used by distributed inter-RAT ES algorithms to allow an original cell to leave the energySaving state. Threshold and time duration are applied to the candidate cell which provides coverage backup for the cell in energySaving state.  The time duration indicates how long the traffic load (either for UL or DL) in the candidate cell needs to have been above the threshold to wake up one or more original cells which have been provided backup coverage by the candidate cell.  For the load see the definition of interRatEsActivationCandidateCellParameters.  allowedValues:  loadThreshold: Integer 0..10000  timeDuration: Integer 0..900 (in unit of seconds) | type: LoadTimeThreshold  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| isProbingCapable | This attribute indicates whether this cell is capable of performing the ES probing procedure. During this procedure the eNB owning the cell indicates its presence to UEs for measurement purposes, but prevents idle mode UEs from camping on the cell and prevents incoming handovers to the same cell.  If this parameter is absent, then probing is not done.  allowedValues: YES, NO | type: ENUM  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| dmroControl | This attribute determines whether the MRO function is enabled or disabled.  allowedValues: TRUE,FALSE | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| dDAPSHOControl | This attribute determines whether the DAPS handover function is enabled or disabled.  allowedValues: TRUE, FALSE | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| dCHOControl | This attribute determines whether the CHO handover function is enabled or disabled.  allowedValues: TRUE, FALSE | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| dlboControl | This attribute determines whether the D-LBO function is enabled or disabled.  allowedValues: TRUE,FALSE | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| cSonPciList | This holds a list of physical cell identities that can be assigned to the pci attribute by gNB. The assignment algorithm is not specified.  This attribute shall be supported if and only if the C-SON PCI configuration is supported. See TS 28.313, ref [57] subclause 7.1.3.  allowedValues: See TS 38.211 [32] subclause 7.4.2.1 for legal values of pci. The number of pci in the list is 0 to 1007. | type: Integer  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| ueAccProbabilityDist | This is a list of target Access Probability (*APn*) for the RACH optimization function.  Each instance *APn* of the list is the probability that the UE gets access on the RACH channel per cell within *n* number of preambles sent over an unspecified sampling period.  This target is suitable for RACH optimization.  allowedValues: Each element of the list, ***APn,*** is a pair (*a*, *n*) where *a* is the targetProbability (in %) and *n* is the number of preambles sent.  The legal values for *a* are 25, 50, 75, 90.  The legal values for *n* are 1 to 200.  The number of elements specified is 4. The number of elements supported is vendor specific. The choice of supported values for *a* and *n* is vendor-specific. | type: UeAccProbability  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| ueAccDelayProbabilityDist | This is a list of target Access Delay probability (*ADP*) for the RACH optimization function.  Each instance *ADP* of the list is the target time before the UE gets access on the RACH channel per cell, for the *P* percent of the successful RACH Access attempts with lowest accessDelay, over an unspecified sampling period.  This target is suitable for RACH optimization.  allowedValues: Each element of the list, ***ADp,*** is a pair (*p, d*) where *p* is the targetProbability (in %) and *d* is the access delay (in milliseconds).  The legal values for *p* are 25, 50, 75, 90.  The legal values for *d* are 10 to 560.  The number of elements specified is 4. The number of elements supported is vendor specific. The choice of supported values for *p* and *d* is vendor-specific. | type: UeAccDelayProbability  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| targetProbability | This attribute indicates a probability (in %).  allowedValues: 0..100 | type: Integer  multiplicity:0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| numberOfPreamblesSent | This attribute indicates the number of preambles sent.  allowedValues: 1..200 | type: Integer  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| accessDelay | This attribute indicates the access delay in unit of milliseconds.  allowedValues: 10..560 | type: Integer  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| drachOptimizationControl | This attribute determines whether the RACH Optimization function is enabled or disabled.  allowedValues: TRUE,FALSE | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| nRPciList | This holds a list of physical cell identities that can be assigned to the NR cells.  This attribute shall be supported if D-SON PCI configuration function is supported. See subclause 8.2.3, 8.3.1 in TS 28.313 [57].  allowedValues: See TS 38.211 [32] subclause 7.4.2 for legal values of pci. The number of pci in the list is 0 to 1007. | type: Integer  multiplicity: 0..1007  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| dPciConfigurationControl | This attribute determines whether the Distributed SON PCI configuration Function is enabled or disabled.  allowedValues: TRUE,FALSE | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| cPciConfigurationControl | This attribute determines whether the Centralized SON PCI configuration function is enabled or disabled.  allowedValues: TRUE,FALSE | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| maximumDeviationHoTriggerLow | This parameter defines the maximum allowed lower deviation of the Handover Trigger, from the default point of operation (see clause 15.5.2.5 in TS 38.300 [3] and clause 9.2.2.61 in TS 38.423 [58].)  allowedValues: -20..20  Unit: 0.5 dB | type: Integer  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| maximumDeviationHoTriggerHigh | This parameter defines the maximum allowed upper deviation of the Handover Trigger, from the default point of operation (see clause 15.5.2.5 in TS 38.300 [3]. and clause 9.2.2.61 in TS 38.423 [58].)  allowedValues: -20..20  Unit: 0.5 dB | type: Integer  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| minimumTimeBetweenHoTriggerChange | This parameter defines the minimum allowed time interval between two Handover Trigger change performed by MRO. This is used to control the stability and convergence of the algorithm (see clause 15.5.2.5 in TS 38.300 [3]).  allowedValues: 0..604800  Unit: Seconds | type: Integer  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| tstoreUEcntxt | The timer used for detection of too early HO, too late HO and HO to wrong cell. Corresponds to Tstore\_UE\_cntxt timer described in clause 15.5.2.5 in TS 38.300 [3].  This attribute is used for Mobility Robustness Optimization.  allowedValues: 0..1023  Unit: 100 milliseconds | type: Integer  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| configurable5QISetRef | This is the DN of Configurable5QISet.  The detailed definition for Configurable5QISet see clause 5.3.75.  allowedValues: DN of the Configurable5QISet MOI. | type: DN  multiplicity: 0..1  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| dynamic5QISetRef | This is the DN of Dynamic5QISet.  The detailed definition for Dynamic5QISet see clause 5.3.94.  allowedValues: DN of the Dynamic5QISet MOI. | type: DN  multiplicity: 0..1  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| frequencyDomainPara | This attribute defines configuration parameters of frequency domain resource to support RIM RS.  allowedValues: Not applicable. | type: FrequencyDomainPara  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| sequenceDomainPara | This attribute defines configuration parameters of sequence domain resource to support RIM RS.  allowedValues: Not applicable. | type: SequenceDomainPara  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| timeDomainPara | This attribute defines configuration parameters of time domain resource to support RIM RS.  allowedValues: Not applicable. | type: TimeDomainPara  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| rimRSSubcarrierSpacing | It is the subcarrier spacing configuration () for the RIM-RS. Subcarrier spacing (see 38.211 [32], subclause 5.3.3).  allowedValues: 0, 1 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| rIMRSBandwidth | It is the bandwidth of the RIM-RS in resource blocks (see 38.211 [32], subclause 5.3.3).  For carrier bandwidth larger than 20MHz, this attributer should be  96 if subcarrier spacing is15kHz;  48 or 96 if subcarrier spacing is 30kHz;  For carrier bandwidth smaller than or equal to 20MHz, this attribute should be  Minimum of {96 , bandwidth of downlink carrier in number of PRBs} if subcarrier spacing is15kHz;  Minimum of {48, bandwidth of downlink carrier in number of PRBs } if subcarrier spacing is 30kHz;  allowedValues: 1,2..96 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| nrofGlobalRIMRSFrequencyCandidates | It is the number of candidate frequency resources in the whole network () (see 38.211 [32], subclause 7.4.1.6).  allowedValues: 1,2,4 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| rimRSCommonCarrierReferencePoint | This attribute is used to configure the common reference point for RIM RS. Where represents the frequency-location of point A expressed as in ARFCN. See 3GPP TS 38.211 [32] subclause 4.4.4.2  allowedValues: 0..3279165 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| rimRSStartingFrequencyOffsetIdList | It is a list of configured frequency offsets in units of resource blocks, where each element is the frequency offset relative to a configured reference point for RIM-RS. The size of the list is nrofGlobalRIMRSFrequencyCandidates and the resulting frequency resource blocks of RIM-RS corresponding to different configured frequency offset have no overlapping bandwidth. (see 38.211 [32], subclause 7.4.1.6).  .  allowedValues: 0..maxNrofPhysicalResourceBlocks-1 where maxNrofPhysicalResourceBlocks = 550 | type: Integer  multiplicity: 1, 2, 4  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| nrofRIMRSSequenceCandidatesofRS1 | It is the number of candidate sequences assigned for RIM RS-1 () (see 38.211 [32], subclause 7.4.1.6). It should be even when enableEnoughNotEnoughIndication for RS-1 is ON  allowedValues: 1,2..8  see NOTE 10 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| rimRSScrambleIdListofRS1 | It is a list of configured scrambling identities for RIM RS-1 (see 38.211 [32], subclause 7.4.1.6). The size of the list is nrofRIMRSSequenceCandidatesofRS1.  allowedValues: 0..2^10-1 | type: Integer  multiplicity: 1, 2..8  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| nrofRIMRSSequenceCandidatesofRS2 | It is the number of candidate sequences assigned for RIM RS-2 () (see 38.211 [32], subclause 7.4.1.6).  allowedValues: 1,2..8  See NOTE 10. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| rimRSScrambleIdListofRS2 | It is a list of configured scrambling identities for RIM RS-2 (see 38.211 [32], subclause 7.4.1.6).. The size of the list is nrofRIMRSSequenceCandidatesofRS2.  allowedValues: 0..2^10-1 | type: Integer  multiplicity: 1, 2..8  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| enableEnoughNotEnoughIndication | It is indication of whether “Enough” / “Not enough” indication functionality is enabled for RIM RS-1 (see 38.211 [32], subclause 7.4.1.6).  If the indication is "ENABLE",  the first half of nrofRIMRSSequenceCandidatesofRS1 sequences indicates "Not enough mitigation", and the second half indicates "Enough mitigation", where,  "Enough mitigation" indicates that IoT going back to certain level at victim side and/or no further interference mitigation actions are needed at aggressor side  "Not enough mitigation" indicates that IoT exceeding certain level at victim side and/or further interference mitigation actions are needed at aggressor side  enableEnoughNotEnoughIndication is equivalent to EnoughIndication (see 38.211 [32], subclause 7.4.1.6)  allowedValues: "ENABLE", "DISABLE"  see NOTE 8 | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: DISABLE  isNullable: False |
| rIMRSScrambleTimerMultiplier | It is parameter multiplier factor for initialization seed of the pseudo-random sequence (see 38.211 [32], subclause 7.4.1.6.2).  allowedValues: 0,1,….2^31-1 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| rIMRSScrambleTimerOffset | It is parameter offset for initialization seed of the pseudo-random sequence (see 38.211 [32], subclause 7.4.1.6.2).  allowedValues: 0,1,….2^31-1 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| dlULSwitchingPeriod1 | This attribute is used to configure the first uplink-downlink switching period (P1) for RIM RS transmission in the network, where one RIM RS is configured in one uplink-downlink switching period. (see 38.211 [32], subclause 7.4.1.6).  When only one TDD-UL-DL-Pattern is configured, only dl-UL-SwitchingPeriod1 is configured, where P1 equals to the transmission periodicity of the TDD-UL-DL-Pattern.  When two concatenated TDD-UL-DL-Patterns are configured, and RIM-RS resources is configured only in one of the TDD patterns, only dl-UL-SwitchingPeriod1 is configured, where P1 equals to the addition of the concatenated transmission periodicity of the two TDD-UL-DL-Patterns.  When two concatenated TDD-UL-DL-Patterns are configured, and RIM-RS resources are configured in both TDD patterns, both dl-UL-SwitchingPeriod1 and dl-UL-SwitchingPeriod2 are configured, where P1 equals to the transmission periodicity of the first TDD-UL-DL-Pattern.  P1 is equivalent to (see 38.211 [32], subclause 7.4.1.6).  See NOTE 6  allowedValues:  MS0P5, MS0P625, MS1, MS1P25, MS2, MS2P5, MS4, MS5, MS10, MS20, if a single uplink-downlink period is configured for RIM-RS purposes;  MS0P5, MS0P625, MS1, MS1P25, MS2, MS2P5, MS3, MS4, MS5, MS10, MS20, if two uplink-downlink periods are configured for RIM-RS purposes.  see NOTE 9 | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| symbolOffsetOfReferencePoint1 | This attribute is used to configure the reference point in the first uplink-downlink switching period, which is the symbols offset of the reference point after the starting boundary of the first uplink-downlink switching period. It’s Configured together with dl-UL-SwitchingPeriod1 (see 38.211 [32], subclause 7.4.1.6).  When only one TDD-UL-DL-Pattern is configured, the reference point configured for the first uplink-downlink switching period is the DL transmission boundary of the TDD-UL-DL-Pattern.  When two concatenated TDD-UL-DL-Patterns are configured, and RIM-RS resources is configured only in one of the TDD patterns, the reference point configured for the first uplink-downlink switching period is the DL transmission boundary of the TDD-UL-DL-Pattern where the RIM-RS resource is configured.  When two concatenated TDD-UL-DL-Patterns are configured, and RIM-RS resources are configured in both TDD patterns, the reference points configured for first uplink-downlink switching period is the DL transmission boundary of the first TDD-UL-DL-Pattern.  allowedValues: 2, 3..20\*2\*maxNrofSymbols-1, where maxNrofSymbols=14 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| dlULSwitchingPeriod2 | This attribute is used to configure the second uplink-downlink switching period (P2) for RIM RS transmission in the network, where one RIM RS is configured in one uplink-downlink switching period (see 38.211 [32], subclause 7.4.1.6).  When two concatenated TDD-UL-DL-Patterns are configured, and RIM-RS resources are configured in both TDD patterns, both dl-UL-SwitchingPeriod1 and dl-UL-SwitchingPeriod2 are configured, where P2 equals to the transmission periodicity of the second TDD-UL-DL-Pattern, and where (P1 + P2) divides 20 ms.  allowedValues: MS0P5, MS0P625, MS1, MS1P25, MS2, MS2P5, MS3, MS4, MS5, MS10    P2 is equivalent to (see 38.211 [32], subclause 7.4.1.6)  See NOTE 9 | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| symbolOffsetOfReferencePoint2 | This attribute is used to configure the reference point in the second uplink-downlink switching period, which is the symbol offset of the reference point after starting boundary of the second uplink-downlink switching period. Configured together with dl-UL-SwitchingPeriod2 (see 38.211 [32], subclause 7.4.1.6).  When two concatenated TDD-UL-DL-Patterns are configured, and RIM-RS resources are configured in both TDD patterns, the reference points configured for second uplink-downlink switching period is the DL transmission boundary of the second TDD-UL-DL-Pattern.  allowedValues: 2, 3..20\*2\*maxNrofSymbols-1, where maxNrofSymbols=14 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| totalnrofSetIdofRS1 | It is the total number of set IDs for RIM RS-1 () (see 38.211 [32], subclause 7.4.1.6).  allowedValues: 0,1...2^22-1 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| totalnrofSetIdofRS2 | It is the total number of set IDs for RIM RS-2 () (see 38.211 [32], subclause 7.4.1.6).  allowedValues: 0,1...2^22 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| nrofConsecutiveRIMRS1 | It is the number of consecutive uplink-downlink switching periods for RS-1 (R1) for repetition/near-far indication:. (see 38.211 [32], subclause 7.4.1.6).  allowedValues: 1,2,4,8  see NOTE 7 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| nrofConsecutiveRIMRS2 | It is the number of consecutive uplink-downlink switching periods for RS-2 (R2) for repetition/near-far indication. (see 38.211 [32], subclause 7.4.1.6).  allowedValues: 1,2,4,8  see NOTE 7 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| consecutiveRIMRS1List | It is used to configure the OFDM symbol position(s) of RIM RS-1 within the uplink-downlink switching period. It is a list of symbol offset of RIM RS-1 () before the reference point. The size of the list is nrofConsecutiveRIMRS1 (see 38.211 [32], subclause 7.4.1.6).  The resulting RIM RS-1 symbols and its reference point shall belong to the same 10ms frame.  .  allowedValues: 2,3..20\*2\*maxNrofSymbols-1, where maxNrofSymbols=14 | type: Integer  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| consecutiveRIMRS2List | It is used to configure the OFDM symbol position(s) of RIM RS-2 within the uplink-downlink switching period. It is a list of symbol offset of RIM RS-2 () before the reference point. The size of the list is nrofConsecutiveRIMRS2 (see 38.211 [32], subclause 7.4.1.6).  The resulting RIM RS-2 symbols and its reference point shall belong to the same 10ms frame.  .  allowedValues: 2,3..20\*2\*maxNrofSymbols-1, where maxNrofSymbols=14 | type: Integer  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| enablenearfarIndicationRS1 | It is indication of whether near-far functionality is enabled for RIM RS1.  If the indication is “ENABLE”,  the first half of nrofConsecutiveRIMRS1 (R1) consecutive uplink-downlink switching period is for "Near" indication with R1/2 repetitions,  the second half of R1 consecutive uplink-downlink switching period is for "Far" indication with R1/2 repetitions.  allowedValues: "ENABLE", "DISABLE"  see NOTE 10. | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: DISABLE  isNullable: False |
| enablenearfarIndicationRS2 | It is indication of whether near-far functionality is enabled for RIM RS2.  If the indication is “ENABLE”,  the first half of nrofConsecutiveRIMRS2 (R2) consecutive uplink-downlink switching period is for "Near" indication with R2/2 repetitions,  the second half of R2 consecutive uplink-downlink switching period is for "Far" indication with R2/2 repetitions.  allowedValues: "ENABLE", "DISABLE"  see NOTE 10. | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: DISABLE  isNullable: False |
| rimRSReportConf | It is used to configure gNBs to report the all necessary information derived from the detected RIM-RS to OAM.  allowedValues: Not applicable | type: RimRSReportConf  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| reportIndicator | It is used to enable or disable the RS report on a gNB.  If the indication is “ENABLE”, the gNB starts to periodically report necessary information derived from the detected RIM-RS to OAM.  If the indication is “DISABLE”, the gNB stops reporting.  allowedValues: ENABLE, DISABLE | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: DISABLE  isNullable: False |
| reportInterval | It is used to define reporting interval of a gNB in ms.  allowedValues: Not applicable | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| nrofRIMRSReportInfo | It is used to define the maximum number of RIMRSReportInfo in a single report.  allowedValues: Not applicable | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| maxPropagationDelay | It is used to define the maximum reported OFDM symbol number for the propagation delay of the detected RIM-RS in each RIMRSReportInfo.  allowedValues: 0, 1..20\*2\*maxNrofSymbols-1, where maxNrofSymbols=14. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| rimRSReportInfoList | It represents a list (the length of the list is nrofRIMRSReportInfo) of necessary information derived from the detected RIM-RS.  allowedValues:  Not applicable | type: RimRSReportInfo  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| detectedSetID | This attribute indicates the Set ID of the detected RIM-RS.  allowedValues: 0,1...max{totalnrofSetIdofRS1, totalnrofSetIdofRS2}. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| propagationDelay | This attribute indicates the propagation delay of the detected RIM-RS, in number of OFDM symbol.  allowedValues: 0, 1.. maxPropagationDelay. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| functionalityOfRIMRS | This attribute indicates the functionality of the detected RIM-RS.  If the indication of enableEnoughNotEnoughIndication is “enable”, valid values are {RS2, RS1\_FOR\_ENOUGH\_MITIGATION, RS1\_FOR\_NOT\_ENOUGH\_MITIGATION};  If the indication of enableEnoughNotEnoughIndication is “disable”, valid values are {RS1, RS2}.  RS1\_FOR\_ENOUGH\_MITIGATION means RIM-RS type 1 is used to indicate 'enough mitigation' functionality.  RS1\_FOR\_NOT\_ENOUGH\_MITIGATION means RIM-RS type 1 is used to indicate 'Not enough mitigation' functionality.  allowedValues: RS1, RS2, RS1\_FOR\_ENOUGH\_MITIGATION, RS1\_FOR\_NOT\_ENOUGH\_MITIGATION | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| rimRSMonitoringWindowDuration | This attribute configures a duration of the monitoring window in which gNB monitors the RIM-RS, in unit of , where is the RIM-RS transmission periodicity in units of uplink-downlink switching period (see 38.211 [32], subclause 7.4.1.6).  This field is configured together with rimRSMonitoringInterval, rimRSMonitoringWindowStartingOffset, rimRSMonitoringOccasionInterval and rimRSMonitoringOccasionStartingOffset.  The duration of the monitoring window is expected to be larger than or equal to , where is the interval between adjacent monitoring occasions within the monitoring window (configured by rimRSMonitoringInterval).  The absolute duration of the monitoring window is not expected to be larger than the periodicity of the monitoring window (configured by rimRSMonitoringWindowPeriodicity).  Only the earliest consecutive detection durations in each RIM-RS transmission periodicity () in the monitoring window are taken as valid time for monitoring potential interference, and they are consecutively monitored in the monitoring window, while the residual part of each RIM-RS transmission periodicity is not used for discovering potential interference, where, a consecutive detection duration spans (if only is configured) or (if both and are configured), where,  is the number of consecutive uplink-downlinkswitching periods for RS-1 (configured by nrofConsecutiveRIMRS1),  is the first uplink-downlinkswitching period (configured by dlULSwitchingPeriod1),  is the second uplink-downlink switching period (configured by dlULSwitchingPeriod2), and  is the total number of set IDs for RIM RS-1 (configured by totalnrofSetIdofRS1),  is the number of candidate frequency resources in the whole network (configured by nrofGlobalRIMRSFrequencyCandidates), and  is the number of candidate sequences assigned for RIM RS-1 (configured by nrofRIMRSSequenceCandidatesofRS1).  allowedValues: 1,2,..2^14 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| rimRSMonitoringWindowPeriodicity | This attribute configures the periodicity of the monitoring window, in unit of hours.  allowedValues: 1, 2, 3, 4, 6, 8, 12, 24 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| rimRSMonitoringWindowStartingOffset | This attribute configures the start offset of the first monitoring window within one day, in unit of hours.  allowedValues: 0,1,2..23 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| rimRSMonitoringOccasionInterval | This attribute configures the interval between adjacent monitoring occasions (*M*) within the monitoring window, in unit of consecutive detection duration.  *M* is expected to be prime to , where is given in above attribute rimRSMonitoringWindowDuration.  allowedValues: 1,2..-1. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| rimRSMonitoringOccasionStartingOffset | This attribute configures the start offset of the first monitoring occasions within the monitoring window (), in unit of consecutive detection duration.  gNB starts monitoring potential interference from the -th consecutive detection duration in the first complete RIM-RS transmission periodicity () within the monitoring window.  allowedValues: 0,1,2..M-1  where M is the the interval between adjacent monitoring occasions within the monitoring window (configured by rimRSMonitoringOccasionInterval) | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| victimSetRef | This attribute contains the DN of a victim Set (RimRSSet)  allowedValues: Not applicable. | type: DN  multiplicity: 1  isOrdered: N/A  isUnique: True  defaultValue: None  isNullable: False |
| aggressorSetRef | This attribute contains the DN of an aggressor Set (RimRSSet)  allowedValues: Not applicable. | type: DN  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| setType | The attribute specifies type of a RIM-RS Set . RIM RS1 is generated and transmitted by victim to indicate its suffering remote interference, and RIM RS2 is generated and transmitted by aggressor to measure if Remote Interference still exist  If the attribute value is “RS1”, the RIM-RS Set is victim set.  If the attribute value is “RS2”, the RIM-RS Set is aggressor set.  allowedValues:  RS1, RS2. | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| nRCellDURef | This attribute contains the DN of a NR Cell (NRCellDU)  allowedValues: Not applicable. | type: DN  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| isENDCAllowed | This indicates if EN-DC is allowed or prohibited.  If TRUE, the target cell is allowed to be used for EN-DC. The target cell is referenced by the NRCellRelation that contains this isENDCAllowed.  If FALSE, EN-DC shall not be allowed.  allowedValues: TRUE,FALSE | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| x2BlockList | This is a list of GeNBIds. If the target node GeNBId is a member of the source node’s NRCellCU.x2BlockList, the source node is:  1) prohibited from sending X2 connection requests to the target node;  2) forced to tear down an established X2 connection to the target node;  3) not allowed to accept incoming X2 connection requests from the target node.  The same GeNBId may appear here and in NRCellCU.x2AllowList. In such case, the GeNBId in x2AllowList shall be treated as if it is absent.  allowedValues: See NOTE 5. | type: String  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| xnBlockList | This is a list of GgNBIds. If the target node GgNBId is a member of the source node’s NRCellCU.xnBlockList, the source node is:  1) prohibited from sending Xn connection requests to the target node;  2) forced to tear down an established Xn connection to the target node;  3) not allowed to accept incoming Xn connection requests from the target node.  The same GgNBId may appear here and in NRCellCU.xnAllowList. In such case, the GgNBId in xnAllowList shall be treated as if it is absent.  allowedValues: See NOTE 5. | type: String  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| x2AllowList | This is a list of GeNBIds. If the target node GeNBId is a member of the source node’s NRCellCU.x2AllowList, the source node is:  1) allowed to request the establishment of an X2 connection to the target node; 2) not allowed to initiate the tear down of an established X2 connection to the target node  The same GeNBId may appear here and in NRCellCU.x2BlockList. In such case, the GeNBId here shall be treated as if it is absent.  allowedValues: See NOTE 5. | type: String  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| xnAllowList | This is a list of GgNBIds. If the target node GgNBId is a member of the source node’s NRCellCU.xnAllowList, the source node is:  1) allowed to request the establishment of Xn connection with the target node; 2) not allowed to initiate the tear down of an established Xn connection to the target node  The same GgNBId may appear here and in NRCellCU.xnBlockList. In such case, the GgNBId here shall be treated as if it is absent.  allowedValues: See NOTE 5. | type: String  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| xnHOBlockList | This is a list of GgNBIds. For all the entries in NRCellCU.xnHOBlockList, the subject NRCellCU is prohibited to use the Xn interface for HOs even if an Xn interface exists to the target cell.  allowedValues: See NOTE 5. | type: String  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| x2HOBlockList | This is a list of GeNBIds. For all the entries in NRCellCU.x2HOBlockList, the subject NRCellCU is prohibited to use the X2 interface for HOs even if an X2 interface exists to the target cell.  allowedValues: See NOTE 5. | type: String  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| tceIDMappingInfoList | This attribute includes a list of TCE ID, PLMN where TCE resides and the corresponding TCE IP address. It is used in Logged MDT case to provide the information to the gNodeB or GNBCUCPFunction to get the corresponding TCE IP address when there is an MDT log received from the UE.  allowedValues: Not applicable | type: tceIDMappingInfo  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| tceIPAddress | This attribute indicates IP address of TCE. (See subclause 4.1.1.9.2 in TS 32.422[68]) | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| tceID | This attribute indicates TCE Id. (See subclause 4.1.1.9.2 in TS 32.422[68]) | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| pLMNTarget | In tceIDMappingInfo datatype, this attribute indicates the PLMN where TCE resides. (See subclauses 4.1.1.9.2 and 4.9.2 in TS 32.422 [68])  In QceIdMappingInfo datatype, this attribute indicates the PLMN where QoE collection entity resides.  allowedValues: N/A | Type: PLMNId  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| isMLBAllowed | This indicates if mobility load balancing is allowed or prohibited from source cell to target cell.  If TRUE, load balancing is allowed from source cell to target cell. The source cell is identified by the name-containing NRCellCU of the NRCellRelation that contains the isMLBAllowed. The target cell is referenced by the NRCellRelation that contains this isLBAllowed. In case of isHOAllowed is FALSE, mobility load balancing is prohibited by handover from source cell to target cell.  If FALSE, load balancing shall be prohibited from source cell to target cell.  allowedValues: TRUE,FALSE | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| NROperatorCellDU.nRCellDURef | This attribute contains the DN of the referenced NRCellDU.  allowedValues: N/A | type: DN  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| downlinkTransmitPowerRange | It indicates adjustment range (including maximum value, minimum value) of downlinkTransmitPower to optimize radio coverage.  allowedValues:  minValue: [0..100]  maxValue: [0..100] | type: ParameterRange  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| antennaTiltRange | It indicates adjustment range (including maximum value, minimum value) of antennaTilt to optimize radio coverage.  allowedValues:  minValue: [-900..900] in unit 0.1 degree  maxValue: [-900..900] in unit 0.1 degree | type: ParameterRange  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| antennaAzimuthRange | It indicates adjustment range (including maximum value, minimum value) of antennaAzimuth to optimize radio coverage.  allowedValues:  minValue: [-1800..1800] in unit 0.1 degree  maxValue: [-1800..1800] in unit 0.1 degree | type: ParameterRange  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| digitalTiltRange | It indicates adjustment range (including maximum value, minimum value) of digitalTilt to optimize radio coverage.  allowedValues:  minValue: [-900..900] in unit 0.1 degree  maxValue: [-900..900] in unit 0.1 degree | type: ParameterRange  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| digitalAzimuthRange | It indicates adjustment range (including maximum value, minimum value) of digitalAzimuth to optimize radio coverage.  allowedValues:  minValue: [-1800..1800] in unit 0.1 degree  maxValue: [-1800..1800] in unit 0.1 degree | type: ParameterRange  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| coverageShapeList | It indicates the coverage shape of specific sites which can be selected to optimize radio coverage.  allowedValues: 0 .. 65535 | type: Integer  multiplicity: 0..\*  isOrdered: True  isUnique: True  defaultValue: None  isNullable: False |
| cCOControl | This attribute determines whether the centralized SON CCO Function is enabled or disabled.  allowedValues: TRUE,FALSE | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| maxValue | It indicates the maximum value of the parameter.  allowedValues: N/A | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| minValue | It indicates the minimum value of the parameter.  allowedValues: N/A | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| NROperatorCellDU.administrativeState | It indicates the administrative state of the NROperatorCellDU. It describes the permission to use or prohibition against using the cell, imposed through the OAM services.  The value of this attribute is effective only when the value of the attribute NRCellDU.administrativeState = UNLOCKED, if the value of the attribute NRCellDU.administrativeState is LOCKED or SHUTTING DOWN, the value of this attribute shall be treated same as the value of NRCellDU.administrativeState.  allowedValues: LOCKED, SHUTTING DOWN, UNLOCKED.  The meaning of these values is as defined in ITU‑T Recommendation X.731 [18]. | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: LOCKED  isNullable: False |
| bWPSetRef | Contains the DN of a BWP set (BWPSet).  allowedValues: Not applicable | type: DN  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| bWPList | Defines the list of DN of BWPs associated to the BWPSet.  allowedValues: Not applicable | type: DN  multiplicity: 0..12  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| ephemerisInfoSetRef | This is the DN of EphemerisInfoSet.  allowedValues: DN of the EphemerisInfoSet MOI. | type: DN  multiplicity: 0..1  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| ephemerisInfos | This is the list of Ephemeris related information.  allowedValues: N/A | type: Ephemeris  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| NTNFunction.nTNpLMNInfoList | It defines which PLMNs that can be served by the NR NTN cell, and which S-NSSAIs can be supported by the NR NTN cell for corresponding PLMN in case of network slicing feature is supported. The pLMNId of the first entry of the list is the PLMNId used to construct the nCGI for the NR cell.  allowedValues: Not applicable. | type: PLMNInfo  multiplicity: 1..\*  isOrdered: True  isUnique: True  defaultValue: None  isNullable: False |
| NTNFunction.nTNTACList | It is the list of Tracking Area Codes (either legacy TAC or extended TAC) for NR NTN.  allowedValues:  Legacy TAC and Extended TAC are defined in clause 9.3.3.10 of TS 38.413 [5]. | type: NrTac  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| satelliteId | This attribute indicates satellite Id.number. It shall be formatted as a fixed 5-digit string, padding with leading digits “0” to complete a 5-digit length.  allowedValues: N/A  Pattern: '^[0-9]{5}$' | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| epochTime | It defines the ephemeris reference time.,  allowedValues: N/A | type: DateTime  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| positionVelocity | It indicates ephemeris is in format of NTN payload position and velocity state vectors.  allowedValues: N/A | type: PositionVelocity  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| orbital | It indicates ephemeris is in orbital parameter ephemeris format, as specified in NIMA TR 8350.2 [95].  allowedValues: N/A | type: Orbital  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| positionX | X, Y, Z coordinate of satellite position state vector in ECEF. Unit is meter.  Step of 1.3 m. Actual value = field value \* 1.3.  allowedValues: 0..604800  Unit: meter | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: 0  isNullable: False |
| positionY | X, Y, Z coordinate of satellite position state vector in ECEF. Unit is meter.  Step of 1.3 m. Actual value = field value \* 1.3.  allowedValues: 0..604800  Unit: meter | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: 0  isNullable: False |
| positionZ | X, Y, Z coordinate of satellite position state vector in ECEF. Unit is meter.  Step of 1.3 m. Actual value = field value \* 1.3.  allowedValues: 0..604800  Unit: meter | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: 0  isNullable: False |
| velocityVX | X, Y, Z coordinate of satellite velocity state vector in ECEF.  Step of 0.06 m/s. Actual value = field value \* 0.06.  allowedValues: -131072..131071  Unit: meter/second | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: 0  isNullable: False |
| velocityVY | X, Y, Z coordinate of satellite velocity state vector in ECEF.  Step of 0.06 m/s. Actual value = field value \* 0.06.  allowedValues: -131072..131071  Unit: meter/second | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: 0  isNullable: False |
| velocityVZ | X, Y, Z coordinate of satellite velocity state vector in ECEF.  Step of 0.06 m/s. Actual value = field value \* 0.06.  allowedValues: -131072..131071  Unit: meter/second | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: 0  isNullable: False |
| semiMajorAxis | Satellite orbital parameter: semi major axis , see NIMA TR 8350.2 [95].  Step of 4.249 \* 10-3 m. Actual value = 6500000 + field value \* (4.249 \* 10-3).  allowedValues: 0..8589934591  Unit: meter | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: 0  isNullable: False |
| eccentricity | Satellite orbital parameter: eccentricity e, see NIMA TR 8350.2 [95].  Step 1.431 \* 10-8. Actual value = field value \* (1.431 \* 10-8).  allowedValues: -524288..524287 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: 0  isNullable: False |
| periapsis | Satellite orbital parameter: argument of periapsis , see NIMA TR 8350.2 [95].  Step of 2.341\* 10-8 rad. Actual value = field value \* (2.341\* 10-8).  allowedValues: 0..16777215  Unit: radian | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: 0  isNullable: False |
| longitude | Satellite orbital parameter: longitude of ascending node , see NIMA TR 8350.2 [95].  Step of 2.341\* 10-8 rad. Actual value = field value \* (2.341\* 10-8).  allowedValues: 0..2097151  Unit: radian | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: 0  isNullable: False |
| inclination | Satellite orbital parameter: inclination i, see NIMA TR 8350.2 [95].  Step of 2.341\* 10-8 rad. Actual value = field value \* (2.341\* 10-8).  allowedValues: -524288..524287  Unit: radian | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: 0  isNullable: False |
| meanAnomaly | Satellite orbital parameter: Mean anomaly M at epoch time, see NIMA TR 8350.2 [95].  Step of 2.341\* 10-8 rad. Actual value = field value \* (2.341\* 10-8).  allowedValues: 0..16777215  Unit: radian | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: 0  isNullable: False |
| qoECollectionEntityAddress | Specifies the IP address to which the QMC reports shall be transferred.  IP address can be an IPv4 address (See RFC 791 [37]) or an IPv6 address (See RFC 2373 [38]).  allowedValues: N/A | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| qoECollectionEntityIdentity | Specifies a unique identity of the QoE collection entity to which the QMC reports shall be transferred. (For details, please see subclause 5 of TS 28.405[104])  allowedValues: N/A | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| qceIdMappingInfoList | It identifies a list of relationship between the identity of the QoE collection entity, PLMN where QoE collection entity resides, and the IP address of the QoE collection entity.  allowedValues: N/A | type: QceIdMappingInfo  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| mdtUserConsentReqList | It represents a list of MDT measurement names that are subject to user consent at MDT activation.  Any MDT measurement, whose name is not specified in this list, is not subject to user consent at MDT activation.  allowedValues: M1, M2, M3, M4, M5, M6, M7, M8, M9, MDT\_UE\_LOCATION. | type: ENUM  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| mappedCellIdInfoList | This attribute provides the list of mapping between geographical location and Mapped Cell ID.  allowedValues: Not applicable | type: MappedCellIdInfo  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| ntnGeoArea | This attribute indicates a specific geographical location mapped to Mapped Cell ID(s).  allowedValues: N/A | type: GeoArea  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| mappedCellId | This attribute is in format of NCGI to indicate a fixed geographical area (See subclause 16.14.5 in TS 38.300[3]).  allowedValues: N/A | type: Ncgi  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| mLModelRefList | This attribute holds a DN list of MLModel (See TS 28.105 [105]). | type: DN  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| aIMLInferenceFunctionRefList | This attribute holds a DN list of AIMLInferenceFunction (See TS 28.105 [105]) . | type: DN  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| nRECMappingRuleRef | This is the DN of NRECMappingRule.  An empty value indicates the NRECMappingRule contained by parent, e.g. SubNetwok or ManagedElement, applies.  allowedValues: Not applicable | type: DN  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| ecTimeInterval | This attribute specifies the time interval (in seconds) that should be applied for collecting values of mapping rule attribute to then be used for computing the energy cost.  allowedValues: N/A | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| ecMRInputMinimumValue | This attribute specifies, for the attribute considered in the mapping rule, the minimum value of to be applied for mapping from this attribute to the energy cost.  allowedValues: N/A | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| ecMRInputMaximumValue | This attribute specifies, for the attribute considered in the mapping rule, the maximum value of to be applied for mapping from this attribute to the energy cost.  allowedValues: N/A | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| NOTE 1: Void  NOTE 2: The radio resource can be signaling resources (e.g. RRC connected users) or user plane resources (e.g. PRB, PRB UL, PRB DL, DRB). Different RRM Policy maybe applied for different types of radio resource. E.g. RRMPolicyRatio is used for PRB resource. When the resource type is PRB the policy applies for both uplink and downlink, and ‘PRB UL’ and ‘PRB DL’ are not used.  NOTE 3: Void  NOTE 4: A RRM Policy can make use of the defined policy (e.g. RRMPolicyRatio) or a vendor specific RRM Policy.  NOTE 5: For Global gNB Identifiers, the entries are formatted according to the pattern <mcc><mnc>-<gNBIdLength>-<gNBId>, where <mcc> is three digits, <mnc> two or three digits, <gNBIdLength> is a string containing a number n as digits, in the range 22 to 32, and <gNBId> is a string containing digits for the number 0 to 2n-1. For Global eNB Identifiers, the entries are formatted according to the pattern <mcc><mnc>-<eNBIdLength>-<eNBId>, where <mcc> is three digits, <mnc> two or three digits, <gNBIdLength> is a string containing a number m as digits, m being one of 18, 20, 21 or 22, and <eNBId> is a string containing digits for the number 0 to 2m-1.  NOTE 6: The maximum number of total RIM RS sequence within 10ms is 32 regardless single or two uplink-downlink period are configured in the 10ms.  NOTE 7:  1. The maximum number of consecutive uplink-downlink switching periods for repetition/near-far-functionality is 8 (the number can be either 2, 4, or 8) with near-far functionality and with repetition.  2. The maximum number of consecutive uplink-downlink switching periods for repetition is 4 (the number can be either 1, 2, or 4) without near-far functionality and with repetition only.  3. The maximum number of consecutive uplink-downlink switching periods is 2 with near-far functionality only and without repetition.  NOTE 8: (for information): “Not enough mitigation” means aggressor gNB needs to increase the interference mitigation level (i.e., further interference mitigation actions) (e.g., further reducing the DL transmission power on DL symbols at aggressor side), while “Enough mitigation” means aggressor gNB keeping the current interference mitigation level unchanged (i.e., no further interference mitigation actions) (e.g., remaining the DL transmission power on DL symbols unchanged at aggressor side).  NOTE 9: Value MS0P5 corresponds to 0.5 ms, MS0P625 corresponds to 0.625 ms, MS1 corresponds to 1 ms, MS1P25 corresponds to 1.25 ms, and so on.  NOTE 10: RIM RS-1, RIM-RS1，RIM RS1 is equivalent to RIM-RS type 1 (see 38.211 [32], clause 7.4.1.6) RIM RS-2, RIM-RS2，RIM RS2 is equivalent to RIM-RS type 2 (see 38.211 [32], clause 7.4.1.6). | | |

***Next change***

### 5.4.1 Attribute properties

The following table defines the attributes that are present in several Information Object Classes (IOCs) of the present document.

| Attribute Name | Documentation and Allowed Values | Properties |
| --- | --- | --- |
| aMFIdentifier | The AMFI is constructed from an AMF Region ID, an AMF Set ID and an AMF Pointer. The AMF Region ID identifies the region, the AMF Set ID uniquely identifies the AMF Set within the AMF Region, and the AMF Pointer uniquely identifies the AMF within the AMF Set. (Ref. 3GPP TS 23.003 [13]) | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| aMFSetId | It represents the AMF Set ID, which is uniquely identifies the AMF Set within the AMF Region.  allowedValues: defined in subclause 2.10.1 of 3GPP TS 23.003 [13]. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| aMFSetMemberList | It is the list of DNs of AMFFunction instances of the AMFSet.  allowedValues: N/A | type: DN  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| aMFRegionId | It represents the AMF Region ID, which identifies the region.  allowedValues: defined in subclause 2.10.1 of 3GPP TS 23.003 [13]. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| gUAMIdList | List of supported Globally Unique AMF Ids (GUAMIs). | type: GUAMInfo  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| backupInfoAmfFailure | List of GUAMIs for which the AMF acts as a backup for AMF failure. | type: GUAMInfo  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| backupInfoAmfRemoval | List of GUAMIs for which the AMF acts as a backup for planned AMF removal. | type: GUAMInfo  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| localAddress | This parameter specifies the localAddress including IP address and VLAN ID used for initialization of the underlying transport.  First string is IP address, IP address can be an IPv4 address (See RFC 791 [37]) or an IPv6 address (See RFC 2373 [38]).  Second string is VLAN Id (See IEEE 802.1Q [39]). | type: String  multiplicity: 2  isOrdered: True  isUnique: True  defaultValue: None  isNullable: False |
| remoteAddress | Remote address including IP address used for initialization of the underlying transport.  IP address can be an IPv4 address (See RFC 791 [37]) or an IPv6 address (See RFC 2373 [38]). | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| nFProfileList | It is a set of NFProfile(s) to be registered in the NRF instance. NFProfile is defined in 3GPP TS 29.510 [23].  allowedValues: N/A | type: NFProfile  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| cNSIIdList | It is a set of NSI ID. NSI ID is an identifier for identifying the Core Network part of a Network Slice instance when multiple Network Slice instances of the same Network Slice are deployed, and there is a need to differentiate between them in the 5GC. See NSI ID definition in clause 3.1 of TS 23.501 [2] and subclause 6.1.6.2.7 of TS 29.531 [24]. | type: String  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| energySavingControl | This attribute allows management system to initiate energy saving activation or deactivation for the edge UPF.  allowedValues:  TO\_BE\_ENERGYSAVING, TO\_BE\_NOT\_ENERGYSAVING. | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: True |
| energySavingState | This attribute specifies the status regarding the energy saving in the edge UPF.  If the value of energySavingControl is TO\_BE\_ENERGYSAVING, then it shall be tried to achieve the value IS\_ENERGYSAVING for the energySavingState.  If the value of energySavingControl is TO\_BE\_NOT\_ENERGYSAVING, then it shall be tried to achieve the value IS\_NOT\_ENERGYSAVING for the energySavingState.  allowedValues:  IS\_NOT\_ENERGYSAVING, IS\_ENERGYSAVING. | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| sNSSAIList | See subclause 4.4.1. |  |
| pLMNInfoList | It defines the PLMN(s) of a Network Function. | type: PLMNInfo  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| sBIFQDN | It is used to indicate the FQDN of the registered NF instance in service-based interface, for example, NF instance FQDN structure is:  nftype<nfnum>.slicetype<sliceid>.mnc<MNC>.mcc<MCC>.3gppnetwork.org | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| interPlmnFQDN | If the NF needs to be discoverable by other NFs in a different PLMN, then an FQDN that is used for inter-PLMN routing as specified in 3GPP TS 23.003 [13] shall be registered with the NRF. | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| sBIServiceList | It is used to indicate the all supported NF services registered on service-based interface. | type: String  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| nRTACList | It is the list of Tracking Area Codes (either legacy TAC or extended TAC).  allowedValues:  Legacy TAC and Extended TAC are defined in clause 9.3.3.10 of TS 38.413 [5]. | type: String  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| taiList | The list of TAIs. | type: TAI  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| taiRangeList | The range of TAIs. | type: TAIRange  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| sNssaiSmfInfoList | List of parameters supported by the SMF per S-NSSAI | type: SnssaiSmfInfoItem  multiplicity: \*  isOrdered: False  isUnique: Ture  defaultValue: None  isNullable: False |
| dnnSmfInfoList | List of parameters supported by the SMF per DNN | type: DnnSmfInfoItem  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| dnn | String representing a Data Network as defined in clause 9A of 3GPP TS 23.003 [13]; it shall contain either a DNN Network Identifier, or a full DNN with both the Network Identifier and Operator Identifier, as specified in 3GPP TS 23.003 [13] clause 9.1.1 and 9.1.2. It shall be coded as string in which the labels are separated by dots (e.g. "Label1.Label2.Label3").  Whether the dnn data type contains just the DNN Network Identifier, or the Network Identifier plus the Operator Identifier, shall be documented in each API where this data type is used. | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| dnaiList | List of Data network access identifiers supported for this DNN.  allowedValues:  DNAI (Data network access identifier), see clause 5.6.7 of 3GPP TS 23.501 [2]. | type: String  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| pgwFqdn | The FQDN of the PGW if the SMF is a combined SMF/PGW-C. | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| pgwIpAddrList | The PGW IP addresses of the combined SMF/PGW-C.  It allows the NF Service consumer to find the target combined SMF/PGW-C by PGW IP Address, e.g., when only PGW IP Address is available. | type: IpAddr  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| vsmfSupportInd | Used by an SMF to explicitly indicate the support of V-SMF capability and its preference to be selected as V-SMF.  When present it indicate whether the V-SMF capability is supported by the SMF:  - TRUE: V-SMF capability supported by the SMF  - FALSE: V-SMF capability not supported by the SMF.  When absent the V-SMF capability support of the SMF is not specified. | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| pgwFqdnList | When present, this attribute provides additional FQDNs to the FQDN indicated in the pgwFqdn attribute.  The pgwFqdnList attribute may be present if the pgwFqdn attribute is present. | type: String  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| nRTACRangeList | The range of TACs. | type: NRTACRange  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| nRTACstart | First value identifying the start of a TAC range, to be used when the range of TAC's can be represented as a hexadecimal range (e.g., TAC ranges). 3-octet string identifying a tracking area code, each character in the string shall take a value of "0" to "9" or "A" to "F" and shall represent 4 bits. The most significant character representing the 4 most significant bits of the TAC shall appear first in the string, and the character representing the 4 least significant bit of the TAC shall appear last in the string.  Pattern: "^([A-Fa-f0-9]{4}|[A-Fa-f0-9]{6})$" | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| nRTACend | Last value identifying the end of a TAC range, to be used when the range of TAC's can be represented as a hexadecimal range (e.g. TAC ranges). 3-octet string identifying a tracking area code, each character in the string shall take a value of "0" to "9" or "A" to "F" and shall represent 4 bits. The most significant character representing the 4 most significant bits of the TAC shall appear first in the string, and the character representing the 4 least significant bit of the TAC shall appear last in the string.  Pattern: "^([A-Fa-f0-9]{4}|[A-Fa-f0-9]{6})$" | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| nRTACpattern | Pattern (regular expression according to the ECMA-262 dialect [x0]) representing the set of TAC's belonging to this range. A TAC value is considered part of the range if and only if the TAC string fully matches the regular expression. | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| supportedBMOList | It is used to indicate the list of supported BMOs (Bridge Managed Objects) required for integration with TSN system. | type: String  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| managedNFProfile | This parameter defines profile for managed NF (See TS 23.501 [2]).  allowedValues: N/A | type: ManagedNFProfile  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| nfInstanceID | This parameter defines unique identity of the NF Instance. The format of the NF Instance ID shall be a Universally Unique Identifier (UUID) version 4, as described in IETF RFC 4122 [44]  allowedValues: N/A | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| nfType | This parameter defines type of Network Function  allowedValues: See TS 23.501[2] for NF types | type: ENUM  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| heartBeatTimer | Time between two consecutive heart-beat messages from an NF Instance to the NRF defined in seconds. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: 0  isNullable: False |
| fqdn | This parameter defines FQDN of the Network Function (See TS 23.003 [13])  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| ipAddress | This parameter defines IP Address of the Network Function. It can be IPv4 address (See RFC 791 [37]) or IPv6 address (See RFC 2373 [38]).  allowedValues: N/A | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| authzInfo | This parameter defines NF Specific Service authorization information. It shall include the NF type (s) and NF realms/origins allowed to consume NF Service(s) of NF Service Producer (See TS 23.501[2]).  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| allowedPLMNs | PLMNs allowed to access the NF instance.  If not provided, any PLMN is allowed to access the NF. | type: PLMNId  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| sNPNList | SNPN(s) of the Network Function.  This attributeIE shall be present if the NF pertains to one or more SNPNs. (see clauses 6.1.6 in 3GPP TS 29.510 [23]). | type: SNPNInfoID  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| allowedSNPNs | SNPNs allowed to access the NF instance.  The absence of this attribute in the NF profile indicates that no SNPN, other than the SNPN(s) registered in the snpnList attribute of the NF Profile, is allowed to access the service instance. | type: SNPNId  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| mCC | This is the Mobile Country Code (MCC) of the PLMN identifier. See TS 23.003 [3] subclause 2.2 and 12.1.  allowedValues: a bounded string of 3 characters representing 3 digits. | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| mNC | This is the Mobile Network Code (MNC) of the PLMN identifier. See TS 23.003 [3] subclause 2.2 and 12.1.  allowedValues: A bounded string of 2 or 3 characters representing 2 or 3 digits. | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| nId | Network Identity; Shall be present if PlmnIdNid identifies an SNPN (see clauses 5.30.2.3, 5.30.2.9, 6.3.4, and 6.3.8 in 3GPP TS 23.501 [2]). | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| allowedNfTypes | Type of the NFs allowed to access the NF instance.  If not provided, any NF type is allowed to access the NF.  allowedValues: See TS 23.501[2] for NF types | type: ENUM  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| allowedNfDomains | Pattern (regular expression according to the ECMA-262 dialect [72]) representing the NF domain names within the PLMN of the NRF allowed to access the NF instance.  If not provided, any NF domain is allowed to access the NF. | type: String  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| allowedNSSAIs | S-NSSAI of the allowed slices to access the NF instance.  If not provided, any slice is allowed to access the NF. | type: S-NSSAI  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| locality | The parameter defines information about the location of the NF instance (e.g. geographic location, data center) defined by operator (See TS 29.510[23]).  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| capacity | This parameter defines static capacity information in the range of 0-65535, expressed as a weight relative to other NF instances of the same type; if capacity is also present in the nfServiceList parameters, those will have precedence over this value (See TS 29.510[23])  allowedValues: 0-65535 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  allowedValues: N/A  isNullable: False |
| recoveryTime | Timestamp when the NF was (re)started. The NRF shall notify NFs subscribed to receiving notifications of changes of the NF profile, if the NF recoveryTime is changed. | type: DateTime  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  allowedValues: N/A  isNullable: False |
| nfServicePersistence | This parameter indicates whether the different service instances of a same NF Service in the NF instance, supporting a same API version, are capable to persist their resource state in shared storage and therefore these resources are available after a new NF service instance supporting the same API version is selected by a NF Service Consumer (see TS 29.510 [23]). | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| nfSetIdList | A NF Set Identifier is a globally unique identifier of a set of equivalent and interchangeable CP NFs from a given network that provide distribution, redundancy and scalability (see clause 5.21.3 of 3GPP TS 23.501 [2]).  An NF Set Identifier shall be constructed from the MCC, MNC, NID (for SNPN), NF type and a Set ID. A NF Set Identifier shall be formatted as the following string:  set<Set ID>.<nftype>set.5gc.mnc<MNC>.mcc<MCC> for a NF Set in a PLMN, or  set<Set ID>.<nftype>set.5gc.nid<NID>.mnc<MNC>.mcc<MCC> for a NF Set in a SNPN.  At most one NF Set ID shall be indicated per PLMN-ID or SNPN of the NF. | type: String  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| nfProfileChangesSupportInd | This parameter indicates if the NF Service Consumer supports or does not support receiving NF Profile Changes. It may be present in the NFRegister or NFUpdate (NF Profile Complete Replacement) request and shall be absent in the response (see Annex B 3GPP TS 29.510 [23]). | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| defaultNotificationSubscriptions | Notification endpoints for different notification types.  This attribute may contain multiple default subscriptions for a same notification type; in that case, those default subscriptions are used as alternative notification endpoints. | type: DefaultNotificationSubscription  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| notificationType | This parameter indicates the types of notifications used in Default Notification URIs in the NF Profile of an NF Instance.  allowedValues:  "N1\_MESSAGES",  "N2\_INFORMATION",  "LOCATION\_NOTIFICATION",  ”DATA\_REMOVAL\_NOTIFICATION”,  "DATA\_CHANGE\_NOTIFICATION",  "LOCATION\_UPDATE\_NOTIFICATION",  "NSSAA\_REAUTH\_NOTIFICATION",  "NSSAA\_REVOC\_NOTIFICATION" | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| callbackURI | This attribute contains a default notification endpoint to be used by a NF Service Producer towards an NF Service Consumer that has not registered explicitly a callback URI in the NF Service Producer (e.g. as a result of an implicit subscription). | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| n1MessageClass | This attribute (if it is present) identifies that class of N1 messages shall be notified as per TS 29.518 [80]. | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| n2InformationClass | This attribute (if it is present) identifies that class of N2 messages shall be notified as per TS 29.518 [80]. | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| versions | This attribute identifies the API versions (e.g. "v1") supported for the default notification type. | type: String  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| binding | This attribute shall contain the value of the Binding Indication for the default subscription notification (i.e. the value part of "3gpp-Sbi-Binding" header), as specified in clause 6.12.4 of 3GPP TS 29.500 [76]. | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| servingScope | This parameter indicates the served geographical areas of a NF instance. | type: String  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| lcHSupportInd | This parameter indicates whether the NF supports or does not support Load Control based on LCI Header (see clause 6.3 of 3GPP TS 29.500 [76]). | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: False  isNullable: False |
| olcHSupportInd | This parameter indicates whether the NF supports or does not support Overload Control based on OCI Header (see clause 6.4 of 3GPP TS 29.500 [76]). | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: False  isNullable: False |
| nfSetRecoveryTimeList | This parameter contains the recovery time of NF Set(s) indicated by the NfSetId, where the NF instance belongs. | type: DateTime  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| serviceSetRecoveryTimeList | This parameter contains the recovery time of NF Service Set(s) configured in the NF instance, which are indicated by the NfServiceSetId. | type: DateTime  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| scpDomains | This parameter shall carry the list of SCP domains the SCP belongs to, or the SCP domain the NF (other than SCP) or the SEPP belongs to. | type: String  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| vendorId | Vendor ID of the NF instance, according to the IANA-assigned "SMI Network Management Private Enterprise Codes" [77].  allowedValues: 6 decimal digits; if the SMI code has less than 6 digits, it shall be padded with leading digits "0" to complete a 6-digit string value. | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| hostAddr | This parameter defines host address of a NF  allowedValues: N/A | type: HostAddr  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| priority | This parameter defines Priority (relative to other NFs of the same type) in the range of 0-65535, to be used for NF selection; lower values indicate a higher priority. If priority is also present in the nfServiceList parameters, those will have precedence over this value (See TS 29.510[23]).  allowedValues: 0-65535 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| supportedDataSets | This parameter defines list of supported data sets in the UDR instance (See TS 29.510[23]).  allowedValues: "SUBSCRIPTION", "POLICY", EXPOSURE", "APPLICATION", "A\_PFD", "A\_AFTI", "A\_IPTV", "A\_BDT", "A\_SPD", "A\_EASD", "A\_AMI", "P\_UE", "P\_SCD", "P\_BDT", "P\_PLMNUE", "P\_NSSCD". | type: ENUM  multiplicity: 1..\*  isOrdered: False  isUnique: False  defaultValue: None  isNullable: False |
| nFSrvGroupId | This parameter defines identity of the group that is served by the NF instance (See TS 29.510[23]).  allowedValues: N/A | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| smfServingArea | This parameter defines the SMF service area(s) the UPF can serve (See TS 29.510[23]). If not provided, the UPF can serve any SMF service area.  allowedValues: N/A | type: String  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| interfaceUpfInfoList | List of User Plane interfaces configured on the UPF. When this parameter is provided in the NF Discovery response, the NF Service Consumer (e.g., SMF) may use this information for UPF selection. | type: InterfaceUpfInfoItem  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| interfaceType | This parameter defines the type of User Plane (UP) interface.  allowedValues:  "N3"  "N6"  "N9"  "DATA\_FORWARDING"  "N6MB"  "N19MB"  "N3MB"  "NMB9" | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| ipv4EndpointAddresses | Available endpoint IPv4 address(es) of the User Plane interface. | type: Ipv4Addr  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| ipv6EndpointAddresses | Available endpoint IPv6 address(es) of the User Plane interface. | type: Ipv6Addr  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| networkInstance | Network Instance (See TS 29.244 [56]) associated to the User Plane interface | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| iwkEpsInd | Indicates whether interworking with EPS is supported by the UPF.  allowedValues:  True: Supported False: Not Supported | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: False  isNullable: False |
| pduSessionTypes | Indicates the type(s) of a PDU session.  allowedValues:  “IPV4” “IPV6” “IPV4V6” as per clause 5.8.2.2.1 TS 23.501 [2] “UNSTRUCTURED” “ETHERNET” | type: ENUM  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| atsssCapability | Indicate the ATSSS capability of the UPF. | type: AtsssCapability  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| atsssLL | Indicates the ATSSS-LL capability to support procedures related to Access Traffic Steering, Switching, Splitting (see clauses 4.2.10, 5.32 of TS 23.501 [2]).  allowedValues:  True: Supported False: Not Supported | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: False  isNullable: False |
| mptcp | Indicates the MPTCP capability to support procedures related to Access Traffic Steering, Switching, Splitting (see clauses 4.2.10, 5.32 of TS 23.501 [2]).  allowedValues:  True: Supported False: Not Supported | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: False  isNullable: False |
| rttWithoutPmf | Indicates whether the UPF supports RTT measurement without PMF (see clauses 5.32.2, 6.3.3.3 of TS 23.501 [2]).  allowedValues:  True: Supported  False: Not Supported. | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: False  isNullable: False |
| ueIpAddrInd | Indicates whether the UPF supports allocating UE IP addresses/prefixes.  allowedValues:  True: supported False: not supported | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: False  isNullable: False |
| wAgfInfo | Indicate that the UPF is collocated with W-AGF. If not present, the UPF is not collocated with Wireline Access Gateway Function (W-AGF). | type: IpInterface  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| tngfInfo | Indicate that the UPF is collocated with TNGF. If not present, the UPF is not collocated with Trusted Non-3GPP Gateway Function (TNGF). | type: IpInterface  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| twifInfo | Indicate that the UPF is collocated with TWIF. If not present, the UPF is not collocated with Trusted WLAN Interworking Function (TWIF). | type: IpInterface  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| redundantGtpu | Indicates whether the UPF supports redundant GTP-U path.  allowedValues:  True: supported False: not supported | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: False  isNullable: False |
| ipups | Indicates whether the UPF is configured for Inter-PLMN User Plane Security (IPUPS). Any UPF can support the IPUPS functionality. In network deployments where specific UPFs are used to provide IPUPS, UPFs configured for providing IPUPS services shall be selected.  allowedValues:  True: The UPF is configured for IPUPS.  False: The UPF is not configured for IPUPS | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: False  isNullable: False |
| dataForwarding | Indicates whether the UPF is configured for data forwarding.  Based on operator policies, if dedicated UPFs are preferred to be used for indirect data forwarding during handover scenarios, when setting up the indirect data forwarding tunnel, the SMF should preferably select a UPF configured for data forwarding and use the network instance indicated in the Network Instance ID associated to the DATA\_FORWARDING interface type in the interfaceUpfInfoList attribute.  allowedValues:  True: the UPF is configured for data forwarding  False: the UPF is not configured for data forwarding  If the UPF is configured for data forwarding, it shall support UP network interface with type "DATA\_FORWARDING". | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: False  isNullable: False |
| supportedPfcpFeatures | Supported Packet Forwarding Control Protocol (PFCP) Features.  A string used to indicate the PFCP features supported by the UPF, which encodes the "UP Function Features" as specified in Table 8.2.25-1 of TS 29.244 [56] (starting from Octet 5), in hexadecimal representation.  Each character in the string shall take a value of "0" to "9", "a" to "f" or "A" to "F" and each two characters shall represent one octet of "UP Function Features" (starting from Octet 5, to higher octets). For each two characters representing one octet, the first character representing the 4 most significant bits of the octet and the second character the 4 least significant bits of the octet.  The supported PFCP features shall be provisioned in addition and be consistent with the existing UPF features (atsssCapability, ueIpAddrInd, redundantGtpu and ipups), e.g., if the ueIpAddrInd is set to "true", then the UEIP flag shall also be set to "1" in the supported PFCP features. | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| isESCoveredBy | This indicates whether the adjacentCell provides no, partial or full coverage for the cell which name-contains the NRCellRelation instance.  Adjacent cells with this attribute equal to "FULL" are recommended to be considered as candidate cells to take over the coverage when the original cell state is about to be changed to energySaving.  All adjacent cells with this attribute value equal to "PARTIAL" are recommended to be considered as entirety of candidate cells to take over the coverage when the original cell state is about to be changed to energySaving.  allowedValues: NO, PARTIAL, FULL | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| commModelList | The attribute specifies a list of commModel which is defined as a datatype (see clause 5.3.69). It can be used by NF and NF services to interact with each other in 5G Core network (see TS 23.501 [2]).  allowedValues: Not applicable | type: CommModel  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| groupId | This parameter identiies a list of target NF services on which the same communication model is applied to.  allowedValues: N/A | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| commModelType | This parameter defines communication model used by a NF to interact with NF service(s) (See TS 23.501 [2]).  allowedValues:”DIRECT\_COMMUNICATION\_WO\_NRF”, “DIRECT\_COMMUNICATION\_WITH\_NRF”, “INDIRECT\_COMMUNICATION\_WO\_DEDICATED\_DISCOVERY”, “INDIRECT\_COMMUNICATION\_WITH\_DEDICATED\_DISCOVERY” | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| targetNFServiceList | This parameter lists target NF services sharing same communication model and configuration.  allowedValues: N/A | type: DN  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| commModelConfiguration | This parameter defines configuration parameters for specific communication model for a group of NF Services.  allowedValues: N/A | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| supportedFuncList | This parameter lists functionalities supported by a SCP. Refer to TS 23.501 [2]. | type: SupportedFunction  multiplicity: 1..\*  isOrdered: False  isUnique: False  defaultValue: None  isNullable: False |
| address | This parameter defines address of a SCP instance, it can be IP address (either IPv4 address (See RFC 791 [37]) or IPv6 address (See RFC 2373 [38])) or FQDN (See TS 23.003 [13]). | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| function | This parameter defines name of a functionality supported by a SCP. | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| policy | This parameter defines configuration policies of a functionality supported by a SCP. | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| capabilityList | This parameter lists capabilities supported by a NEF. Refer to TS 23.501 [2].  allowedValues: N/A | type: String  multiplicity: 1..\*  isOrdered: False  isUnique: False  defaultValue: None  isNullable: False |
| isCAPIFSup | This parameter defines if the NEF support Common API Framework.  allowedValues: TRUE, FALSE | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| sEPPType | This parameter defines the type of a SEPP entity. Refer to TS 33.501 [52].  allowedValues: “CSEPP”, “PSEPP” | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| sEPPId | This parameter is identifier of a SEPP, it is unique inside a PLMN.  allowedValues: N/A | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| remotePlmnId | This parameter defines PLMNId of the remote SEPP.  allowedValues: N/A | Type: PLMNId  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| remoteSeppAddress | This parameter defines address of the remote SEPP. It can be IP address (either IPv4 address (See RFC 791 [37]) or IPv6 address (See RFC 2373 [38])) or FQDN(See TS 23.003 [13]).  allowedValues: N/A | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| remoteSeppId | This parameter defines identifier of the remote SEPP. it is unique inside a PLMN.  allowedValues: N/A | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| n32cParas | This attribute is used to configure parameters to establish security link between two SEPPs.  allowedValues: N/A | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| n32fPolicy | This attribute is used to configure policies to protect the messages exchanged between SEPPs.  allowedValues: N/A | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| withIPX | This attribute defines if there’s an IPX interconnected between two SEPPs.  allowedValues: TRUE, FALSE | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| FiveQiDscpMappingList | It provides the list of mapping between 5QIs and DSCP.  allowedValues: N/A | type: FiveQiDscpMapping  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| fiveQIValues | It indicates a list of 5QI value.  allowedValues: 0 - 255 | type: Integer  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| dscp | It indicates a DSCP.  allowedValues: 0 – 255 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| configurable5QISetRef | This is the DN of Configurable5QISet.  allowedValues: DN of the Configurable5QISet MOI. | type: DN  multiplicity: 0..1  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| dynamic5QISetRef | This is the DN of Dynamic5QISet MOI.  allowedValues: DN of the Dynamic5QISet MOI. | type: DN  multiplicity: 0..1  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| fiveQIValue | It identifies the 5QI value.  allowedValues: 0 – 255 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| resourceType | It indicates the Resource Type of a 5QI, as specified in TS 23.501 [2].  allowedValues: "GBR", NON\_GBR", "DELAY\_CRITICAL\_GBR" | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: False  defaultValue: None  isNullable: False |
| priorityLevel | It indicates the Priority Level of a 5QI, as specified in TS 23.501 [2].  allowedValues: 0 - 127 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| packetDelayBudget | It indicates the Packet Delay Budget (in unit of 0.5ms) of a 5QI, as specified in TS 23.501 [2].  allowedValues: 0 - 1023 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| packetErrorRate | It indicates the Packet Error Rate of a 5QI, as specified in TS 23.501 [2].  allowedValues: N/A | type: PacketErrorRate  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| averagingWindow | It indicates the Averaging Window (in unit of ms) of a 5QI, as specified in TS 23.501 [2].  allowedValues: 0 - 4095 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| maximumDataBurstVolume | It indicates the Maximum Data Burst Volume (in unit of Byte) of a 5QI, as specified in TS 23.501 [2].  allowedValues: 0 - 4095 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| scalar | The Packet Error Rate of a 5QI expressed as *Scalar* x 10-k where k is the *Exponent*.  This attriutes indicates the *Scalar* of this expression.  allowedValues: 0 - 9 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| exponent | The Packet Error Rate of a 5QI expressed as *Scalar* x 10-k where k is the *Exponent*.  This attriutes indicates the *Exponent* of this expression.  allowedValues: 0 - 9 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| gtpUPathQoSMonitoringState | It indicates the state of GTP-U path QoS monitoring for URLLC service.  allowedValues: "ENABLED", "DISABLED". | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: ENABLED  isNullable: False |
| gtpUPathMonitoredSNSSAIs | It specifies the S-NSSAIs for which the GTP-U path QoS monitoring is to be performed.  allowedValues: See 3GPP TS 23.003 [13] | type: S-NSSAI  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| monitoredDSCPs | It specifies the DSCPs for which the GTP-U path QoS monitoring is to be performed.  allowedValues: See 3GPP TS 29.244 [56] | type: Integer  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| isEventTriggeredGtpUPathMonitoringSupported | It indicates whether the event triggered GTP-U path QoS monitoring reporting based on thresholds is supported, see 3GPP TS 29.244 [56].  allowedValues: “TRUE”, “FALSE”. | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: TRUE  isNullable: False |
| isPeriodicGtpUMonitoringSupported | It indicates whether the periodic GTP-U path QoS monitoring reporting is supported, see 3GPP TS 29.244 [56].  allowedValues: “TRUE”, “FALSE”. | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: TRUE  isNullable: False |
| isImmediateGtpUMonitoringSupported | It indicates whether the immediate GTP-U path QoS monitoring reporting is supported, see 3GPP TS 29.244 [56].  allowedValues: “TRUE”, “FALSE”. | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: TRUE  isNullable: False |
| gtpUPathDelayThresholds | It specifies the thresholds for reporting the packet delay for the GTO-U path QoS monitoring, if the isEventTriggeredGtpUPathMonitoringSupported attribute of the same MOI is set to “yes”.  The packet delay will be reported to SMF when it exceeds the threshold (in milliseconds).  allowedValues: N/A. | type: GtpUPathDelayThresholdsType  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| gtpUPathMinimumWaitTime | It specifies the minimum waiting time (in seconds) between two consecutive reports for event triggered GTP-U path QoS monitoring reporting, if the isEventTriggeredGtpUPathMonitoringSupported attribute of the same MOI is set to “yes”.  allowedValues: see 3GPP TS 29.244 [56]. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| gtpUPathMeasurementPeriod | It specifies the period (in seconds) for reporting the packet delay for GTP-U path QoS monitoring, if the isPeriodicGtpUMonitoringSupported attribute of the same MOI is set to “yes”.  allowedValues: see 3GPP TS 29.244 [56]. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| n3AveragePacketDelayThreshold | It specifies the threshold for reporting the average packet delay of a GTP-U path on N3 interface.  allowedValues: see 3GPP TS 29.244 [56]. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| n3MinPacketDelayThreshold | It specifies the threshold for reporting the minimum packet delay of a GTP-U path on N3 interface.  allowedValues: see 3GPP TS 29.244 [56]. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| n3MaxPacketDelayThreshold | It specifies the threshold for reporting the maxinum packet delay of a GTP-U path on N3 interface.  allowedValues: see 3GPP TS 29.244 [56]. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| n9AveragePacketDelayThreshold | It specifies the threshold for reporting the average packet delay of a GTP-U path on N9 interface.  allowedValues: see 3GPP TS 29.244 [56]. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| n9MinPacketDelayThreshold | It specifies the threshold for reporting the minimum packet delay of a GTP-U path on N9 interface.  allowedValues: see 3GPP TS 29.244 [56]. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| n9MaxPacketDelayThreshold | It specifies the threshold for reporting the maxinum packet delay of a GTP-U path on N9 interface.  allowedValues: see 3GPP TS 29.244 [56]. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| qFQoSMonitoringState | It indicates the state of QoS monitoring per QoS flow per UE for URLLC service.  allowedValues: "ENABLED", "DISABLED". | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: ENABLED  isNullable: False |
| qFMonitoredSNSSAIs | It specifies the S-NSSAIs for which the QoS monitoring per QoS flow per UE is to be performed.  allowedValues: See 3GPP TS 23.003 [13] | type: S-NSSAI  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| qFMonitored5QIs | It specifies the 5QIs for which the QoS monitoring per QoS flow per UE is to be performed.  allowedValues: See 3GPP TS 23.501[2] | type: Integer  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| isEventTriggeredQFMonitoringSupported | It indicates whether the event based QoS monitoring reporting per QoS flow per UE is supported, see 3GPP TS 29.244 [56].  allowedValues: “TRUE”, “FALSE”. | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: TRUE  isNullable: False |
| isPeriodicQFMonitoringSupported | It indicates whether the periodic QoS monitoring reporting per QoS flow per UE is supported, see 3GPP TS 29.244 [56].  allowedValues: “TRUE”, “FALSE”. | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: TRUE  isNullable: False |
| isSessionReleasedQFMonitoringSupported | It indicates whether the session release based QoS monitoring reporting per QoS flow per UE is supported, see 3GPP TS 29.244 [56].  allowedValues: “TRUE”, “FALSE”. | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: TRUE  isNullable: False |
| qFPacketDelayThresholds | It specifies the thresholds for reporting the packet delay between PSA and UE for QoS monitoring per QoS flow per UE, if the isEventTriggeredQFMonitoringSupported attribute of the same MOI is set to “yes”.”.  The packet delay will be reported by PSA UPF to SMF when it exceeds the threshold (in milliseconds).  allowedValues: see 3GPP TS 29.244 [56]. | type: QFPacketDelayThresholdsType  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| qFMinimumWaitTime | It specifies the minimum waiting time (in seconds) between two consecutive reports for event triggered QoS monitoring reporting per QoS flow per UE, if the isEventTriggeredQFMonitoringSupported attribute of the same MOI is set to “yes”.  allowedValues: see 3GPP TS 29.244 [56]. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| qFMeasurementPeriod | It specifies the period (in seconds) for reporting the packet delay for QoS monitoring per QoS flow per UE, if the isPeriodicQFMonitoringSupported attribute of the same MOI is set to “yes”.  allowedValues: see 3GPP TS 29.244 [56]. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| thresholdDl | It specifies the threshold for reporting the DL packet delay between PSA UPF and UE.  allowedValues: see 3GPP TS 29.244 [56]. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| thresholdUl | It specifies the threshold for reporting the UL packet delay between PSA UPF and UE.  allowedValues: see 3GPP TS 29.244 [56]. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| thresholdRtt | It specifies the threshold for reporting the round-trip packet delay between PSA UPF and UE.  allowedValues: see 3GPP TS 29.244 [56]. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| predefinedPccRules | It specifies the predefined PCC Rules, see TS 25.503 [59].  allowedValues: N/A | type: PccRule  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| pccRuleId | It identifies the PCC rule.  allowedValues: N/A | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| flowInfoList | It is a list of IP flow packet filter information.  allowedValues: N/A | type: FlowInformation  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| applicationId | A reference to the application detection filter configured at the UPF.  allowedValues: N/A | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| appDescriptor | It is the ATSSS rule application descriptor.  allowedValues: see TS 29.571 [61]. | type: BitString  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| contentVersion | Indicates the content version of the PCC rule.  allowedValues: N/A | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| precedence | It indicates the order in which this PCC rule is applied relative to other PCC rules within the same PDU session.  allowedValues: 0..255. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| afSigProtocol | Indicates the protocol used for signalling between the UE and the AF.  allowedValues: “NO\_INFORMATION”, “SIP”. | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: “NO\_INFORMATION”  isNullable: False |
| isAppRelocatable | It indicates the application relocation possibility.allowedValues: “TRUE”, “FALSE”. | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: FALSE  isNullable: False |
| isUeAddrPreserved | It Indicates whether UE IP address should be preserved.  allowedValues: “TRUE”, “FALSE”. | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: FALSE  isNullable: False |
| qosData | It contains the QoS control policy data for a PCC rule.  allowedValues: N/A | type: QoSData  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| altQosParams | It contains the QoS control policy data for the Alternative QoS parameter sets of the service data flow. Only the "qosId" attribute, "5qi" attribute, "maxbrUl" attribute, "maxbrDl" attribute, "gbrUl" attribute and "gbrDl" attribute are applicable within the QosData data type. This data type represents an ordered list, where the lower the index of the array for a given entry, the higher the priority.  allowedValues: N/A | type: QoSData  multiplicity: \*  isOrdered: True  isUnique: True  defaultValue: None  isNullable: False |
| trafficControlData | It contains the traffic control policy data for a PCC rule.  allowedValues: N/A | type: TrafficControlData  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| conditionData | It contains the condition data for a PCC rule.  allowedValues: N/A | type: ConditionData  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| tscaiInputUl | It contains transports TSCAI input parameters for TSC traffic at the ingress interface of the DS-TT/UE (uplink flow direction).  allowedValues: N/A | type: TscaiInputContainer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| tscaiInputDl | It contains transports TSCAI input parameters for TSC traffic at the ingress of the NW-TT (downlink flow direction).  allowedValues: N/A | type: TscaiInputContainer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| flowDescription | It defines a packet filter for an IP flow.  allowedValues: see TS 29.214 [62]. | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| ethFlowDescription | It defines a packet filter for an Ethernet flow.  allowedValues: see TS 29.514 [62]. | type: EthFlowDescription  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| destMacAddr | It specifies the destination MAC address formatted in the hexadecimal notation according to clause 1.1 and clause 2.1 of IETF RFC 7042 [63].  Pattern: '^([0-9a-fA-F]{2})((-[0-9a-fA-F]{2}){5})$'.  allowedValues: N/A. | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| ethType | A two-octet string that represents the Ethertype, as described in IEEE 802.3 [64] and IETF RFC 7042 [63] in hexadecimal representation.  Each character in the string shall take a value of "0" to "9" or "A" to "F" and shall represent 4 bits. The most significant character representing the 4 most significant bits of the ethType shall appear first in the string, and the character representing the 4 least significant bits of the ethType shall appear last in the string.  allowedValues: see IEEE 802.3 [64] and IETF RFC 7042 [63]. | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| fDesc | It contains the flow description for the Uplink or Downlink IP flow. It shall be present when the ethtype is IP.  allowedValues: see flowDescription in TS 29.214 [62]. | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| fDir | It indicates the packet filter direction.  allowedValues: "DOWNLINK", "UPLINK". | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| sourceMacAddr | It specifies the source MAC address formatted in the hexadecimal notation according to clause 1.1 and clause 2.1 of IETF RFC 7042 [63].  Pattern: '^([0-9a-fA-F]{2})((-[0-9a-fA-F]{2}){5})$'.  allowedValues: N/A. | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| vlanTags | It specifies the Customer-VLAN and/or Service-VLAN tags containing the VID, PCP/DEI fields as defined in IEEE 802.1Q [65] and IETF RFC 7042 [63]. The first/lower instance in the array stands for the Customer-VLAN tag and the second/higher instance in the array stands for the Service-VLAN tag.  Each field is encoded as a two-octet string in hexadecimal representation. Each character in the string shall take a value of "0" to "9" or "A" to "F" and shall represent 4 bits. The most significant character representing the PCP/DEI field shall appear first in the string, followed by character representing the 4 most significant bits of the VID field, and the character representing the 4 least significant bits of the VID field shall appear last in the string.  If only Service-VLAN tag is provided, empty string for Customer-VLAN tag shall be provided.  allowedValues: see IEEE 802.1Q [65] and IETF RFC 7042 [63]. | type: String  multiplicity: \*  isOrdered: True  isUnique: True  defaultValue: None  isNullable: False |
| srcMacAddrEnd | It specifies the source MAC address end. If this attribute is present, the sourceMacAddr attribute specifies the source MAC address start. E.g. srcMacAddrEnd with value 00-10-A4-23-3E-FE and sourceMacAddr with value 00-10-A4-23-3E-02 means all MAC addresses from 00-10-A4-23-3E-02 up to and including 00-10-A4-23-3E-FE.  allowedValues: N/A. | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| destMacAddrEnd | It specifies the destination MAC address end. If this attribute is present, the destMacAddr attribute specifies the destination MAC address start.  allowedValues: N/A. | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| packFiltId | It is the identifier of the packet filter.  allowedValues: N/A. | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| packetFilterUsage | It indicates if the packet shall be sent to the UE.  allowedValues: TRUE, FALSE | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: FALSE  isNullable: False |
| tosTrafficClass | It contains the Ipv4 Type-of-Service and mask field or the Ipv6 Traffic-Class field and mask field.  allowedValues: N/A | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| spi | It is the security parameter index of the IPSec packet, see IETF RFC 4301 [66].  allowedValues: see IETF RFC 4301 [66]. | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| flowLabel | It specifies the Ipv6 flow label header field.  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| flowDirection | It indicates the direction/directions that a filter is applicable.  allowedValues: “DOWNLINK”, “UPLINK”, “BIDIRECTIONAL”, “UNSPECIFIED”. | type: ENUM  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| qosId | It identifies the QoS control policy data for a PCC rule.  allowedValues: N/A | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| maxbrUl | It represents the maximum uplink bandwidth formatted as follows:  Pattern: '^\d+(\.\d+)? (bps|Kbps|Mbps|Gbps|Tbps)$', see TS 29.512 [60].  Examples:  "125 Mbps", "0.125 Gbps", "125000 Kbps"  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| maxbrDl | It represents the maximum downlink bandwidth formatted as follows:  Pattern: '^\d+(\.\d+)? (bps|Kbps|Mbps|Gbps|Tbps)$', see TS 29.512 [60].  Examples:  "125 Mbps", "0.125 Gbps", "125000 Kbps".  allowedValues: N/A. | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| gbrUl | It represents the guaranteed uplink bandwidth formatted as follows:  Pattern: '^\d+(\.\d+)? (bps|Kbps|Mbps|Gbps|Tbps)$', see TS 29.512 [60].  Examples:  "125 Mbps", "0.125 Gbps", "125000 Kbps".  allowedValues: N/A. | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| gbrDl | It represents the guaranteed downlink bandwidth formatted as follows:  Pattern: '^\d+(\.\d+)? (bps|Kbps|Mbps|Gbps|Tbps)$', see TS 29.512 [60].  Examples:  "125 Mbps", "0.125 Gbps", "125000 Kbps".  allowedValues: N/A. | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| extMaxDataBurstVol | It denotes the largest amount of data that is required to be transferred within a period of 5G-AN PDB, see TS 29.512 [60].  allowedValues: 4096..2000000. | type: Integer  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| arp | It indicates the allocation and retention priority.  allowedValues: N/A. | type: ARP  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| ARP.priorityLevel | It defines the relative importance of a resource request.  allowedValues: 1..15. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| preemptCap | It defines whether a service data flow may get resources that were already assigned to another service data flow with a lower priority level.  allowedValues: "NOT\_PREEMPT", "MAY\_PREEMPT". | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| preemptVuln | It defines whether a service data flow may lose the resources assigned to it in order to admit a service data flow with higher priority level.  allowedValues: "NOT\_PREEMPTABLE", "PREEMPTABLE". | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| qosNotificationControl | It indicates whether notifications are requested from 3GPP NG-RAN when the GFBR can no longer (or again) be guaranteed for a QoS Flow during the lifetime of the QoS Flow.  allowedValues: "TRUE", "FALSE". | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: FALSE  isNullable: False |
| reflectiveQos | Indicates whether the QoS information is reflective for the corresponding non-GBR service data flow.  allowedValues: "TRUE", "FALSE". | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: FALSE  isNullable: False |
| sharingKeyDl | It indicates, by containing the same value, what PCC rules may share resource in downlink direction.  allowedValues: N/A. | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| sharingKeyUl | It indicates, by containing the same value, what PCC rules may share resource in uplink direction.  allowedValues: N/A. | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| maxPacketLossRateDl | It indicates the downlink maximum rate for lost packets that can be tolerated for the service data flow.  allowedValues: 0..1000. | type: Integer  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| maxPacketLossRateUl | It indicates the uplink maximum rate for lost packets that can be tolerated for the service data flow.  allowedValues: 0..1000. | type: Integer  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| tcId | It univocally identifies the traffic control policy data within a PDU session.  allowedValues: N/A. | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| flowStatus | It represents whether the service data flow(s) are enabled or disabled. See TS 29.514 [67].  allowedValues: “ENABLED-UPLINK”, “ENABLED-DOWNLINK”, “ENABLED”, “DISABLED”, “REMOVED”. | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: “ENABLED”  isNullable: False |
| redirectInfo | It indicates whether the detected application traffic should be redirected to another controlled address.  allowedValues: N/A. | type: RedirectInformation  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| addRedirectInfo | It contains the additional redirect information indicating whether the detected application traffic should be redirected to another controlled address.  allowedValues: N/A. | type: RedirectInformation  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| redirectEnabled | It indicates whether the redirect instruction is enabled.  allowedValues: "TRUE", "FALSE". | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| redirectAddressType | It indicates the type of redirect address, see TS 29.512 [60].  allowedValues: " IPV4\_ADDR", "IPV6\_ADDR", “URL”, “SIP\_URI”. | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| redirectServerAddress | It indicates the address of the redirect server.  allowedValues: N/A. | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| muteNotif | It indicates whether applicat'on's start or stop notification is to be muted.  allowedValues: "TRUE", "FALSE". | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: FALSE  isNullable: False |
| trafficSteeringPolIdDl | It references to a pre-configured traffic steering policy for downlink traffic at the SMF, see TS 29.512 [60].  allowedValues: N/A. | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| trafficSteeringPolIdUl | It references to a pre-configured traffic steering policy for uplink traffic at the SMF, see TS 29.512 [60].  allowedValues: N/A. | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| routeToLocs | It provides a list of location which the traffic shall be routed to for the AF request.  allowedValues: N/A. | type: RouteToLocation  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| traffCorreInd | It indicates the traffic correlation.  allowedValues: "TRUE", "FALSE". | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: FALSE  isNullable: False |
| dnai | It represents the DNAI (Data network access identifier), see 3GPP TS 23.501 [2].  allowedValues: N/A. | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| routeInfo | It provides the traffic routing information.  allowedValues: N/A. | type: RouteInformation  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| ipv4Addr | It defines the Ipv4 address of the tunnel end point in the data network, formatted in the "dotted decimal" notation.  Pattern: '^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$'.  allowedValues: N/A. | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| ipv6Addr | It defines the Ipv6 address of the tunnel end point in the data network.  Pattern: '^((:|(0?|([1-9a-f][0-9a-f]{0,3}))):)((0?|([1-9a-f][0-9a-f]{0,3})):){0,6}(:|(0?|([1-9a-f][0-9a-f]{0,3})))$'  and  Pattern: '^((([^:]+:){7}([^:]+))|((([^:]+:)\*[^:]+)?::(([^:]+:)\*[^:]+)?))$'.  allowedValues: N/A. | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| ipv6AddrPrefix | String identifying an IPv6 address prefix formatted according to clause 4 of IETF RFC 5952 [82]. IPv6Prefix data type may contain an individual /128 IPv6 address.  Pattern: '^((:|(0?|([1-9a-f][0-9a-f]{0,3}))):)((0?|([1-9a-f][0-9a-f]{0,3})):){0,6}(:|(0?|([1-9a-f][0-9a-f]{0,3})))(\/(([0-9])|([0-9]{2})|(1[0-1][0-9])|(12[0-8])))$'  and  Pattern: '^((([^:]+:){7}([^:]+))|((([^:]+:)\*[^:]+)?::(([^:]+:)\*[^:]+)?))(\/.+)$' | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| portNumber | It defines the UDP port number of the tunnel end point in the data network, see TS 29.571 [61].  allowedValues: N/A. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| routeProfId | It identifies the routing profile.  allowedValues: N/A. | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| upPathChgEvent | It contains the information about the AF subscriptions of the UP path change.  allowedValues: N/A. | type: UpPathChgEvent  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| notificationUri | It provides notification address (Uri) of AF receiving the event notification.  allowedValues: N/A. | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| notifCorreId | It is used to set the value of Notification Correlation ID in the notification sent by the SMF, see TS 29.512 [60].  allowedValues: N/A. | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| dnaiChgType | It indicates the type of DNAI change, see TS 29.512 [60].  allowedValues: “EARLY”, “EARLY\_LATE”, “LATE”. | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| afAckInd | It identifies whether the AF acknowledgement of UP path event notification is expected.  allowedValues: “TRUE”, “FALSE”. | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: FALSE  isNullable: False |
| steerFun | It indicates the applicable traffic steering functionality, see TS 29.512 [60].  allowedValues: “MPTCP”, “ATSSS\_LL”. | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| steerModeDl | It provides the traffic distribution rule across 3GPP and Non-3GPP accesses to apply for downlink traffic.  allowedValues: N/A. | type: SteeringMode  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| steerModeUl | It provides the traffic distribution rule across 3GPP and Non-3GPP accesses to apply for uplink traffic.  allowedValues: N/A. | type: SteeringMode  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| mulAccCtrl | It indicates whether the service data flow, corresponding to the service data flow template, is allowed or not allowed.  allowedValues: "ALLOWED", "NOT\_ALLOWED". | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: "NOT\_ALLOWED"  isNullable: False |
| steerModeValue | It indicates the value of the steering mode, see TS 29.512 [60].  allowedValues: “ACTIVE\_STANDBY”, “LOAD\_BALANCING”, “SMALLEST\_DELAY”, “PRIORITY\_BASED”. | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| active | It indicates the active access, see TS 29.571 [61].  allowedValues: "3GPP\_ACCESS", "NON\_3GPP\_ACCESS". | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| standby | It indicates the Standby access, see TS 29.571 [61].  allowedValues: "3GPP\_ACCESS", "NON\_3GPP\_ACCESS". | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| threeGLoad | It indicates the traffic load to steer to the 3GPP Access expressed in one percent.  allowedValues: 0..100. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| prioAcc | It indicates the high priority access, see TS 29.571 [61].  allowedValues: "3GPP\_ACCESS", "NON\_3GPP\_ACCESS". | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| condId | It uniquely identifies the condition data.  allowedValues: N/A. | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| activationTime | It indicates the time (in date-time format) when the decision data shall be activated, see TS 29.512 [60] and TS 29.571 [61].  allowedValues: N/A. | type: DateTime  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| deactivationTime | It indicates the time (in date-time format) when the decision data shall be deactivated, see TS 29.512 [60] and TS 29.571 [61].  allowedValues: N/A. | type: DateTime  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| accessType | It provides the condition of access type of the UE when the session AMBR shall be enforced, see TS 29.512 [60].  If this attribute is included in SmfInfo, it shall contain the access type (3GPP\_ACCESS and/or NON\_3GPP\_ACCESS) supported by the SMF.  If not included, it shall be assumed the both access types are supported.  allowedValues: "3GPP\_ACCESS", "NON\_3GPP\_ACCESS". | type: ENUM  multiplicity: 1..2  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| ratType | It provides the condition of RAT type of the UE when the session AMBR shall be enforced, see TS 29.512 [60] and TS 29.571 [61].  allowedValues: "NR", "EUTRA", “WLAN”, “VIRTUAL”, “NBIOT”, “WIRELINE”, “WIRELINE\_CABLE”, “WIRELINE\_BBF”, “LTE-M”, “NR\_U”, “EUTRA\_U”, “TRUSTED\_N3GA”, “TRUSTED\_WLAN”, “UTRA”, “GERA”. | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| periodicity | It identifies the time period between the start of two bursts in reference to the TSN GM.  allowedValues: see TS 29.571 [61]. | type: integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| burstArrivalTime | Indicates the arrival time (in date-time format) of the data burst in reference to the TSN GM.  allowedValues: see TS 29.571 [61]. | type: DateTime  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| nsacfInfoSnssaiList | It represents a list of NSACF information per S-NSSAI.  allowedValues: N/A | type: NsacfInfoSnssai  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| snssaiInfo | It defines generic information for a S-NSSAI. The information includes global unique identifier of a Network Slice (see [2] for definition of Network Slice) and adminstrativeState of the Network Slice  allowedValues: N/A. | type: SnssaiInfo  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| isSubjectToNsac | It defines if the Network Slice subjects to network slice admission control. The value is set to False if the maxNumberofUEs attribute in corresponding SliceProfile is absent.  allowedValues: True, False | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: False  isNullable: False |
| NsacfInfoSnssai.maxNumberofUEs | It defines the maximum number of UEs which are allowed to be served by the Network Slice that is subject to network slice admission control. This number could be derived from maxNumberofUEs defined in corresponding SliceProfile.  allowedValues: 0 - 65535 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: 0  isNullable: False |
| eACMode | It represents if early admission control (EAC) mode is activated.  allowedValues: ACTIVE, INACTIVE | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: INACTIVE  isNullable: False |
| activeEacThreshold | It defines threshold in percentage value of the number of the UEs registered with the network slice to the maximum number of UEs allowed to register with the network slice. The eACMode is set to active when the number of the UEs registered with the network slice is above this threshold.  allowedValues: 0 - 100 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: 0  isNullable: False |
| deactiveEacThreshold | It defines threshold in percentage value of the number of the UEs registered with the network slice to the maximum number of UEs allowed to register with the network slice. The eACMode is set to inactive when the number of the UEs registered with the network slice is below this threshold.  allowedValues: 0 - 100  Note: If this attribute is absent, activeEacThreshhold is used to trigger deactivation of eACMode. | type: Integer  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: 100  isNullable: False |
| numberofUEs | It represents the number of the UEs registered with the network slice. This attribute is updated by NSACF.  allowedValues: 0 - 65535 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| uEIdList | It represents the UEs registered with the network slice. This attribute is updated by NSACF.  allowedValues: N/A | type: String  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| networkSliceInfoList | The attribute specifies a list of NetworkSliceInfo which is defined as a datatype (see clause 5.3.95). It is used by an authorized consumer, e.g. NWDAF, to facilitate the data collection from OAM.  allowedValues: N/A | type: NetworkSliceInfo  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| networkSliceRef | This holds a DN of the NetworkSlice managed object relating to the NetworkSlice instance differentiated by sNSSAI and optional cNSIId. | type: DN  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| sNSSAI | It represents the S-NSSAI the NetworkSlice managed object is supporting. The S-NSSAI is defined in TS 23.003 [13].  allowedValues: See TS 23.003 [13] | type: S-NSSAI  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| cNSIId | It represents NSI ID which is an identifier for identifying the Core Network part of a Network Slice instance when multiple Network Slice instances of the same Network Slice are deployed, and there is a need to differentiate between them in the 5GC. See NSI ID definition in clause 3.1 of TS 23.501 [2] and subclause 6.1.6.2.7 of TS 29.531 [24]. | type: String  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| eCSAddrConfigInfo | It represents one or more FQDN(s) and/or IP address(es) of Edge Configuration Server(s), and of an ECS Provider ID. | type: String  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| aMFSet.aMFRegionRef | This is the DN of AMFRegion instance of the AMFSet. This holds a DN of AMFRegion instance for which the AMFSet instance belongs to.  allowedValues: N/A | type: DN  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| aMFSetRef | This is the DN of AMFSet.  allowedValues: N/A | type: DN  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| aMFSetListRef | This holds a list of DN of AMFSet instances in the same AMFRegion instance.  allowedValues: N/A | type: DN  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| serverAddr | This attribute indicates the DNS server address for the PDU Session (see clause 6.2.2.2 in TS 23.548 [78])  allowedValues: Not applicable. | Type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| NsacfInfoSnssai.maxNumberofPDUSessions | It defines the maximum number of concurrent PDU sessions supported by the network slic. This number could be derived from maxNumberofPDUSessions defined in corresponding SliceProfile. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| eASServiceArea | This parameter defines the EAS service area (see clause 7.3.3.6 in TS 23.558 [81]).  allowedValues: N/A | type: ServingLocation  multiplicity: 1  isOrdered: N/A  isUnique: NA  defaultValue: None  isNullable: False |
| eESServiceArea | This parameter defines the EES service area (see clause 7.3.3.5 in TS 23.558 [81]).  allowedValues: N/A | type: ServingLocation  multiplicity: 1  isOrdered: N/A  isUnique: NA  defaultValue: None  isNullable: False |
| eDNServiceArea | This parameter defines the EDN service area (see clause 7.3.3.4 in TS 23.558 [81]).  allowedValues: N/A | type: ServingLocation  multiplicity: 1  isOrdered: N/A  isUnique: NA  defaultValue: None  isNullable: False |
| 5GCNfConnEcmInfoList | The attribute specifies a list of 5GCNfConnInfo which is defined as a datatype (see clause 5.3.120). It is used to provide 5GC NFs, such as PCF, NEF, SCEF, that are connected EDN NFs, such as EAS, EES, and ECS.  allowedValues: N/A | type: 5GCNfConnEcmInfo  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| 5GCNFType | It indicates the type of a NF instance.  allowedValues:"PCF", "NEF", "SCEF". | type: ENUM  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| 5GCNFIpAddress | This parameter defines address of a NF instance, It can be IP address (either IPv4 address (See RFC 791 [37]) or IPv6 address (See RFC 2373 [38])) or FQDN (See TS 23.003 [13]).  allowedValues: N/A | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| 5GCNFRef | This attribute holds the DN of a NF instance.  allowedValues: N/A | type: DN  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| ednIdentifier | The identifier of the edge data network (See TS 23.558 [81]).  allowedValues: N/A | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| eASIpAddress | This parameter defines address of an EAS instance. It can be IP address (either IPv4 address (See RFC 791 [37]) or IPv6 address (See RFC 2373 [38]).  allowedValues: N/A | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| eESIpAddress | This parameter defines address of an EES instance. It can be IP address (either IPv4 address (See RFC 791 [37]) or IPv6 address (See RFC 2373 [38])).  allowedValues: N/A | type: String  multiplicity: 1  isOrdered: N/A  isUnique: NA  defaultValue: None  isNullable: False |
| eCSIpAddress | This parameter defines address of an ECS instance. It can be IP address (either IPv4 address (See RFC 791 [37]) or IPv6 address (See RFC 2373 [38])).  allowedValues: N/A | type: String  multiplicity: 1  isOrdered: N/A  isUnique: NA  defaultValue: None  isNullable: False |
| uPFConnectionInfo | The attribute is defined as a datatype UPFConnInfo (see clause 5.3.121). It is used to provide the UPF IP address and UPF DN.  allowedValues: N/A | type: UPFConnInfo  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| uPFRef | This attribute holds the DN of an UPF instance.  allowedValues: N/A | type: DN  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| uPFIpAddress | This parameter defines address of an UPF instance, It can be IP address (either IPv4 address (See RFC 791 [37]) or IPv6 address (See RFC 2373 [38])) or FQDN (See TS 23.003 [13]).  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| ecmConnectionType | It indicates the type of ECM connection (i.e., user plane connection via UPF, control plane connection via PCF or NEF.  allowedValues: "USERPLANE", "CONTROLPLANE", "BOTH". | type: ENUM  multiplicity: 0..1  isOrdered: N/A  isUnique: NA  defaultValue: None  isNullable: False |
| nwdafEvents | This attribute represents the Analytic functionalities (identified by nwdafEvent defined in TS 29.520 [85]) of the NWDAF instance. MnS consumer can configure this attribute to specify which Analytic functionalities (identified by nwdafEvent) can be performed the NWDAF instance. If the value of this attribute is not present, the NWDAF instance can perform any NWDAFEvents  allowedValues: the detailed ENUM value for NwdafEvent see the Table 5.1.6.3.4-1 in TS 29.520[85]. | type: NwdafEvent  multiplicity: \*  isOrdered: True  isUnique: True  defaultValue: None  isNullable: False |
| administrativeState | This attribute determines whether the NWDAF is enabled or disabled. MnS consumer can configure this attribute to activate or de-activate the analytic functionalities (identified by nwdafEvent defined in TS 29.520 [85]) of the NWDAF instance.  allowedValues: LOCKED, UNLOCKED. | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| PCFFunction.groupId | It indicates the identity of the PCF group that is served by the PCF instance.  If not provided, the PCF instance does not pertain to any PCF group.  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: NA  defaultValue: None  isNullable: False |
| dnnList | It represents the DNNs supported by the PCF. The DNN, as defined in clause 9A of TS 23.003 [13], shall contain the Network Identifier and it may additionally contain an Operator Identifier, as specified in TS 23.003 [13] clause 9.1.1 and 9.1.2. If the Operator Identifier is not included, the DNN is supported for all the PLMNs in the plmnList of the NF Profile.  If not provided, the PCF can serve any DNN.  allowedValues: N/A | type: String  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| supiRanges | It represents list of ranges of SUPIs that can be served by the PCF instance.  allowedValues: N/A | type: SupiRange  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| PcfInfo.gpsiRanges | It represents list of ranges of GPSIs that can be served by the PCF instance.  allowedValues: N/A | type: IdentityRange  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| SupiRange.start | It indicates the first value identifying the start of a SUPI range, to be used when the range of SUPI's can be represented as a numeric range (e.g., IMSI ranges). This string shall consist only of digits.  Pattern: "^[0-9]+$"  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: NA  defaultValue: None  isNullable: False |
| SupiRange.end | It indicates the last value identifying the end of a SUPI range, to be used when the range of SUPI's can be represented as a numeric range (e.g. IMSI ranges). This string shall consist only of digits.  Pattern: "^[0-9]+$"  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: NA  defaultValue: None  isNullable: False |
| SupiRange.pattern | It indicates the pattern (regular expression according to the ECMA-262 dialect [75]) representing the set of SUPI's belonging to this range. A SUPI value is considered part of the range if and only if the SUPI string fully matches the regular expression.  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: NA  defaultValue: None  isNullable: False |
| IdentityRange.start | It indicates the first value identifying the start of an identity range, to be used when the range of identities can be represented as a numeric range (e.g., MSISDN ranges). This string shall consist only of digits.  Pattern: "^[0-9]+$"  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: NA  defaultValue: None  isNullable: False |
| IdentityRange.end | It indicates the last value identifying the end of an identity range, to be used when the range of identities can be represented as a numeric range (e.g. MSISDN ranges). This string shall consist only of digits.  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: NA  defaultValue: None  isNullable: False |
| IdentityRange.pattern | It indicates the pattern (regular expression according to the ECMA-262 dialect [75]) representing the set of identities belonging to this range. An identity value is considered part of the range if and only if the identity string fully matches the regular expression.  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: NA  defaultValue: None  isNullable: False |
| rxDiamHost | It indicates the Diameter host of the Rx interface for the PCF. See TS 29.571 [61]. String contains a Diameter Identity (FQDN).  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: NA  defaultValue: None  isNullable: False |
| rxDiamRealm | It indicates the Diameter realm of the Rx interface for the PCF. See TS 29.571 [61]. String contains a Diameter Identity (FQDN).  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: NA  defaultValue: None  isNullable: False |
| v2xSupportInd | It indicates whether V2X Policy/Parameter provisioning is supported by the PCF.  TRUE: Supported  FALSE: Not Supported  allowedValues: TRUE, FALSE | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: FALSE  isNullable: False |
| proseSupportInd | It indicates whether ProSe capability is supported by the PCF.  TRUE: Supported FALSE: Not Supported  allowedValues: TRUE, FALSE | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: FALSE  isNullable: False |
| proseCapability | It indicates the supported ProSe Capability by the PCF. | type: ProSeCapability  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| v2xCapability | It indicates the supported V2X Capability by the PCF. | type: V2xCapability  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| proseDirectDiscovery | It indicates whether the PCF supports ProSe Direct Discovery:  - TRUE: ProSe Direct Discovery is supported by the PCF  - FALSE: ProSe Direct Discovery is not supported by the PCF.  allowedValues: TRUE, FALSE | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: FALSE  isNullable: False |
| proseDirectCommunication | It indicates whether the PCF supports ProSe Direct Communication:  - TRUE: ProSe Direct Communication is supported by the PCF  - FALSE: ProSe Direct Communication is not supported by the PCF.  allowedValues: TRUE, FALSE | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: FALSE  isNullable: False |
| proseL2UetoNetworkRelay | It indicates whether the PCF supports ProSe Layer-2 UE-to-Network Relay:  - TRUE: ProSe Layer-2 UE-to-Network Relay is supported by the PCF  - FALSE: ProSe Layer-2 UE-to-Network Relay is not supported by the PCF.  allowedValues: TRUE, FALSE | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: FALSE  isNullable: False |
| proseL3UetoNetworkRelay | It indicates whether the PCF supports ProSe Layer-3 UE-to-Network Relay:  - TRUE: ProSe Layer-3 UE-to-Network Relay is supported by the PCF  - FALSE: ProSe Layer-3 UE-to-Network Relay is not supported by the PCF.  allowedValues: TRUE, FALSE | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: FALSE  isNullable: False |
| proseL2RemoteUe | It indicates whether the PCF supports ProSe Layer-2 Remote UE:  - TRUE: ProSe Layer-2 Remote UE is supported by the PCF  - FALSE: ProSe Layer-2 Remote UE is not supported by the PCF.  allowedValues: TRUE, FALSE | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: FALSE  isNullable: False |
| proseL3RemoteUe | It indicates whether the PCF supports ProSe Layer-3 Remote UE:  - TRUE: ProSe Layer-3 Remote UE is supported by the PCF  - FALSE: ProSe Layer-3 Remote UE is not supported by the PCF.  allowedValues: TRUE, FALSE | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: FALSE  isNullable: False |
| V2xCapability.lteV2x | It indicates whether the PCF supports LTE V2X capability:  - TRUE: LTE V2X capability is supported by the PCF  - FALSE (default): LTE V2X capability is not supported by the PCF.  allowedValues: TRUE, FALSE | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: FALSE  isNullable: False |
| V2xCapability.nrV2x | It indicates whether the PCF supports NR V2X capability:  - TRUE: NR V2X capability is supported by the PCF  - FALSE (default): NR V2X capability is not supported by the PCF.  allowedValues: TRUE, FALSE | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: FALSE  isNullable: False |
| UDMFunction.groupId | It indicates the identity of the UDM group that is served by the UDM instance.  If not provided, the UDM instance does not pertain to any UDM group.  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: NA  defaultValue: None  isNullable: False |
| supiRanges | It represents list of ranges of SUPIs whose profile data is available in the UDM instance.  allowedValues: N/A | type: SupiRange  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| UdmInfo.gpsiRanges | It represents list of ranges of GPSIs whose profile data is available in the UDM instance.  allowedValues: N/A | type: IdentityRange  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| UdmInfo.externalGroupIdentifiersRanges | It represents list of ranges of external groups whose profile data is available in the UDM instance.  allowedValues: N/A | type: IdentityRange  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| routingIndicators | It represents list of Routing Indicator information that allows to route network signalling with SUCI (see TS 23.003 [12]) to the UDM instance.  If not provided, the UDM can serve any Routing Indicator.  Pattern: '^[0-9]{1,4}$'  allowedValues: N/A | type: String  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| UdmInfo.internalGroupIdentifiersRanges | It represents list of ranges of Internal Group Identifiers whose profile data is available in the UDM instance.  If not provided, it does not imply that the UDM supports all internal groups.  allowedValues: N/A | type: InternalGroupIdRange  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| InternalGroupIdRange.start | It indicates first value identifying the start of an identity range, to be used when the range of identities can be represented as a consecutive numeric range.  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: NA  defaultValue: None  isNullable: False |
| InternalGroupIdRange.end | It indicates last value identifying the end of an identity range, to be used when the range of identities can be represented as a consecutive numeric range.  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: NA  defaultValue: None  isNullable: False |
| InternalGroupIdRange.pattern | It indicates pattern (regular expression according to the ECMA-262 dialect [75]) representing the set of identities belonging to this range. An identity value is considered part of the range if and only if the identity string fully matches the regular expression.  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: NA  defaultValue: None  isNullable: False |
| suciInfos | It represents list of SuciInfo. A SUCI that matches this information can be served by the UDM .  A SUCI that matches all attributes of at least one entry in this array shall be considered as a match of this information.  allowedValues: N/A | type: SuciInfo  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| routingInds | It indicates served Routing Indicator (see TS 23.003 [13], clause 2.2B). If not provided, the AUSF/UDM can serve any Routing Indicator.  allowedValues: N/A | type: String  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| hNwPubKeyIds | It indicating served Home Network Public Key (see TS 23.003 [13], clause 2.2B). If not provided, the AUSF/UDM can serve any public key.  allowedValues: N/A | type: Integer  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| UDRFunction.groupId | It indicates the identity of the UDR group that is served by the UDR instance.  If not provided, the UDR instance does not pertain to any UDR group.  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: NA  defaultValue: None  isNullable: False |
| supiRanges | It represents list of ranges of SUPI's whose profile data is available in the UDR instance.  allowedValues: N/A | type: SupiRange  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| UdrInfo.gpsiRanges | It represents list of ranges of GPSIs whose profile data is available in the UDR instance.  allowedValues: N/A | type: IdentityRange  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| externalGroupIdentifiersRanges | It represents list of ranges of external groups whose profile data is available in the UDR instance.  allowedValues: N/A | type: IdentityRange  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| sharedDataIdRanges | It represents list of ranges of Shared Data IDs that identify shared data available in the UDR instance.  allowedValues: N/A | type: SharedDataIdRange  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| SharedDataIdRange.pattern | It indicates the pattern (regular expression according to the ECMA-262 dialect [75]) representing the set of SharedDataIds belonging to this range. A SharedDataId value is considered part of the range if and only if the SharedDataId string fully matches the regular expression.  EXAMPLE: sharedDataId range. "123456-sharedAmData{localID}" where "123456" is the HPLMN id (i.e. MCC followed by MNC) and "{localID}" can be any string.  JSON: { "pattern": "^123456-sharedAmData.+$" }  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: NA  defaultValue: None  isNullable: False |
| udsfInfo | This attribute represents information related to UDSF, as described in clause 6.1.6.2.63 of TS 29.510 [23].  allowedValues: N/A | type: UdsFInfo  multiplicity: 0..1  isOrdered: N/A  isUnique: NA  defaultValue: None  isNullable: False |
| UdsfInfo.grouId | This attribute represents the identity of the UDSF group that is served by the UDSF instance.  If not provided, the UDSF instance does not pertain to any UDSF group.  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: NA  defaultValue: None  isNullable: False |
| UdsfInfo.supiRanges | This attribute represents a list of ranges of SUPIs whose profile data is available in the UDSF instance  If not provided, then the UDSF can serve any SUPI range.  allowedValues: N/A | type: SupiRange  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| UdsfInfo.storageIdRanges | It represents a map (list of key-value pairs) where realmId serves as key and each value in the map is an array of IdentityRanges. Each IdentityRange is a range of storageIds. A UDSF complying with this version of the specification shall include this IE.  Absence indicates that the UDSF's supported realms and storages are determined by the UDSF's consumer by other means such as local provisioning.  allowedValues: N/A | type: IdentityRange  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| seppInfo | This attributes represents information of a SEPP Instance, as described in clause 6.1.6.2.72 of TS 29.510 [23].  allowedValues: N/A | type: SeppInfo  multiplicity: 0..1  isOrdered: N/A  isUnique: NA  defaultValue: None  isNullable: False |
| seppPrefix | This attributes represents optional deployment specific string used to construct the apiRoot of the next hop SEPP, as described in clause 6.10 of TS 29.500 [76].  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: NA  defaultValue: None  isNullable: False |
| seppPorts | This attributes represents SEPP port number(s) for HTTP and/or HTTPS.  This attribute shall be present if the SEPP uses non-default HTTP and/or HTTPS ports. When present, it shall contain the HTTP and/or HTTPS ports.  The key of the map shall be "http" or "https".  The value shall indicate the port number for HTTP or HTTPS respectively.  Minimum: 0 Maximum: 65535  allowedValues: N/A | type: Integer  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| remotePlmnList | It represents a list of remote PLMNs reachable through the SEPP.  The absence of this attribute indicates that any PLMN is reachable through the SEPP.  allowedValues: N/A | type: PlmnId  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| remoteSnpnList | This attributes represents list of remote SNPNs reachable through the SEPP.  The absence of this attribute indicates that no SNPN is reachable through the SEPP.  allowedValues: N/A | type: PlmnIdNid  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| scpDomainInfoList | This attributes represents SCP domain specific information of the SCP that differs from the common information in NFProfile data type. The key of the map shall be the string identifying an SCP domain.  allowedValues: N/A | type: ScpDomainInfo  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| scpPrefix | Optional deployment specific string used to construct the apiRoot of the next hop SCP, as described in clause 6.10 of TS 29.500 [76].  allowedValues: N/A | type: String  multiplicity: 0..1  Ordered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| scpPorts | This attributes represents SCP port number(s) for HTTP and/or HTTPS.  This attribute shall be present if the SCP uses non-default HTTP and/or HTTPS ports and if the SCP does not provision port information within ScpDomainInfo for each SCP domain it belongs to.  allowedValues: 0 - 65535 | type: Integer  multiplicity: 1..\*  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| addressDomains | Pattern (regular expression according to the ECMA-262 dialect [72]) representing the address domain names reachable through the SCP.  Absence of this IE indicates the SCP can reach any address domain names in the SCP domain(s) it belongs to.  allowedValues: N/A | type: String  multiplicity: 1..\*  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| ScpInfo.ipv4Addresses | This attributes represents list of IPv4 addresses reachable through the SCP.  This IE may be present if IPv4 addresses are reachable via the SCP.  If IPv4 addresses are reachable via the SCP, absence of both this IE and ipv4AddrRanges IE indicates the SCP can reach any IPv4 addresses in the SCP domain(s) it belongs to. | type: Ipv4Addr  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| ScpInfo.ipv6Prefixes | List of IPv6 prefixes reachable through the SCP.  This IE may be present if IPv6 addresses are reachable via the SCP.  If IPv6 addresses are reachable via the SCP, absence of both this IE and ipv6PrefixRanges IE indicates the SCP can reach any IPv6 prefixes in the SCP domain(s) it belongs to. | type: Ipv6Addr  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| ScpInfo.ipv4AddrRanges | List of IPv4 addresses ranges reachable through the SCP.  This IE may be present if IPv4 addresses are reachable via the SCP.  If IPv4 addresses are reachable via the SCP, absence of both this IE and ipv4Addresses IE indicates the SCP can reach any IPv4 addresses in the SCP domain(s) it belongs to. | type: Ipv4AddressRange  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| ScpInfo.ipv6PrefixRanges | List of IPv6 prefixes ranges reachable through the SCP.  This IE may be present if IPv6 addresses are reachable via the SCP.  If IPv6 addresses are reachable via the SCP, absence of both this IE and ipv6Prefixes IE indicates the SCP can reach any IPv6 prefixes in the SCP domain(s) it belongs to. | type: Ipv6PrefixRange  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedNfSetIdList | List of NF set ID of NFs served by the SCP.  Absence of this IE indicates the SCP can reach any NF set in the SCP domain(s) it belongs to.  NF Set Identifier (see clause 28.12 of TS 23.003 [13]), formatted as the following string:  "set<Set ID>.<nftype>set.5gc.mnc<MNC>.mcc<MCC>", or "set<SetID>.<NFType>set.5gc.nid<NID>.mnc<MNC>.mcc<MCC>" with  <MCC> encoded as defined in clause 5.4.2 ("Mcc" data type definition)  <MNC> encoding the Mobile Network Code part of the PLMN, comprising 3 digits. If there are only 2 significant digits in the MNC, one "0" digit shall be inserted at the left side to fill the 3 digits coding of MNC. Pattern: '^[0-9]{3}$'  <NFType> encoded as a value defined in Table 6.1.6.3.3-1 of 3GPP TS 29.510 but with lower case characters <Set ID> encoded as a string of characters consisting of alphabetic characters (A-Z and a-z), digits (0-9) and/or the hyphen (-) and that shall end with either an alphabetic character or a digit.  allowedValues: N/A | type: String  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| remotePlmnList | List of remote PLMNs reachable through the SCP.  Absence of this IE indicates that no remote PLMN is reachable through the SCP.  allowedValues: N/A | type: PlmnId  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| remoteSnpnList | This attribute represents the List of remote PLMNs reachable through the SCP.  Absence of this IE indicates that no remote PLMN is reachable through the SCP.  allowedValues: N/A | type: PlmnIdNid  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| ipReachability | This attribute indicates the type(s) of IP addresses reachable via the SCP in the SCP domain(s) it belongs to.  Absence of this IE indicates that the SCP can be used to reach both IPv4 addresses and IPv6 addresses in the SCP domain(s) it belongs to.  allowedValues:  "IPV4": Only IPv4 addresses are reachable.  "IPV6": Only IPv6 addresses are reachable.  "IPV4V6": Both IPv4 addresses and IPv6 addresses are reachable. | type: ENUM  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| scpCapabilities | List of SCP capabilities supported by the SCP.  This IE shall be present if the SCP supports at least one SCP capability. It may be present otherwise, with an empty array, to indicate that the SCP does not support any capability of the ScpCapability data type. The absence of this attribute shall not be interpreted as an SCP that does not support any capability; this only means that the SCP (e.g. pre-Rel-17 SCP) did not register the capabilities it may support.  allowedValues: "INDIRECT\_COM\_WITH\_DELEG\_DISC", which indicating Indirect communication with delegated discovery supported | type: ENUM  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| PlmnIdNid.nid | This attribute represents network Identity; Shall be present if PlmnIdNid identifies an SNPN. (see clauses 5.30.2.3, 5.30.2.9, 6.3.4, and 6.3.8 in TS 23.501 [2]).  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| nwdafInfo | It represents specific data for the NWDAF.  allowedValues: N/A | type: NwdafInfo  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| eventIds | It represents the EventId(s) supported by the Nnwdaf\_AnalyticsInfo service, if none are provided the NWDAF can serve any eventId. (see clause TS 29.520)  allowedValues: N/A | type: String  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| nwdafCapability | This attribute indicates the capability of the NWDAF.  If not present, the NWDAF shall be regarded with no capability.  allowedValues: N/A | type: NwdafCapability  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| analyticsDelay | It represents the supported Analytics Delay related to the eventIds and nwdafEvents.  It is an unsigned integer identifying a period of time in units of seconds.(see clause 5.2.2 TS 29.571 [61]).  allowedValues: N/A | type: Integer  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| NwdafInfo.servingNfTypeList | It contains the list of NF type(s) from which the NWDAF NF can collect data. The absence of this attribute indicates that the NWDAF can collect data from any NF type.  allowedValues: N/A | type: NFType  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| NwdafInfo.servingNfSetIdList | It contains the list of NF type(s) from which the NWDAF NF can collect data. The absence of this attribute indicates that the NWDAF can collect data from any NF type. (see clause 5.4.2 NfSetId in TS 29.571 [61])  allowedValues: N/A | type: String  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| NwdafInfo.taiList | This attribute represents a List of TAIs the NWDAF can serve. It may contain one or more non-3GPP access TAIs. The absence of both this attribute and the taiRangeList attribute indicates that the NWDAF can be selected for any TAI in the serving network.  allowedValues: N/A | type: Tai  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| NwdafInfo.taiRangeList | This attribute represents the range of TAIs the NWDAF can serve. It may contain one or more non-3GPP access TAI ranges. The absence of both this attribute and the taiList attribute indicates that the NWDAF can be selected for any TAI in the serving network.  allowedValues: N/A | type: TaiRange  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| mlAnalyticsList | It represents ML Analytics Filter information supported by the Nnwdaf\_MLModelProvision service.  allowedValues: N/A | type: MlAnalyticsInfo  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| analyticsAggregation | It indicates whether the NWDAF supports analytics aggregation:  - TRUE: analytics aggregation capability is supported by the NWDAF  - FALSE: analytics aggregation capability is not supported by the NWDAF. | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: FALSE  isNullable: False |
| analyticsMetadataProvisioning | It indicate whether the NWDAF supports analytics metadata provisioning:  - TRUE: analytics metadata provisioning capability is supported by the NWDAF  - FALSE: analytics metadata provisioning capability is not supported by the NWDAF. | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: FALSE  isNullable: False |
| mlAnalyticsIds | This attribute represents the Analytic functionalities (identified by nwdafEvent defined in TS 29.520 [85]) of the NWDAF instance. MnS consumer can configure this attribute to specify which Analytic functionalities (identified by nwdafEvent) can be performed the NWDAF instance. If the value of this attribute is not present, the NWDAF instance can perform any NWDAFEvents  Analytics Id(s) supported by the Nnwdaf\_MLModelProvision service, if none are provided the NWDAF can serve any mlAnalyticsId.  allowedValues: the detailed ENUM value for NwdafEvent see the Table 5.1.6.3.4-1 in TS 29.520 [85]. | type: NwdafEvent  multiplicity: \*  isOrdered: True  isUnique: True  defaultValue: None  isNullable: False |
| trackingAreaList | This attribute represents area of Interest of the ML model, if none are provided the ML model for the analytics can apply to any TAIs.  If present, it represents the list of TAIs, it may contain one or more non-3GPP access TAIs.  allowedValues: N/A | type: Tai  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| nsacfInfo | This attribute represents the information of an NSACF NF Instance. (see TS 29.510 [23]).  allowedValues: N/A | type: NsacfInfo  multiplicity: 0..1  isOrdered: N/A  isUnique: NA  defaultValue: None  isNullable: False |
| nsacfCapability | It represents NSACF service capability.  allowedValues: N/A | type: NsacfCapability  multiplicity: 0..1  isOrdered: N/A  isUnique: NA  defaultValue: None  isNullable: False |
| NSACFFunction.taiList | This attribute represents the list of TAIs the NSACF can serve. It may contain one or more non-3GPP access TAIs. The absence of this attribute and the taiRangeList attribute indicate that the NSACF can be selected for any TAI in the serving network.  allowedValues: N/A | type: Tai  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| NSACFFunction.taiRangeList | This attribute represents the range of TAIs the NSACF can serve. It may contain non-3GPP access TAIs. The absence of this attribute and the taiList attribute indicate that the NSACF can be selected for any TAI in the serving network.  allowedValues: N/A | type: TaiRange  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| supportUeSAC | This attribute indicates the service capability of the NSACF to monitor and control the number of registered UEs per network slice for the network slice that is subject to NSAC.  allowedValues:  TRUE: Supported FALSE: Not Supported | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: FALSE  isNullable: False |
| supportPduSAC | This attribute indicates the service capability of the NSACF to monitor and control the number of established PDU sessions per network slice for the network slice that is subject to NSAC.  allowedValues:  TRUE: Supported FALSE: Not Supported | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: FALSE  isNullable: False |
| nefId | It represents the NEF ID. (see clause 6.1.6.3.2 of TS 29.510 [23])  allowedValues: N/A | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| appIds | It represents list of internal application identifiers of the managed PFDs.  allowedValues: N/A | type: String  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| afIds | It represents list of application function identifiers of the managed PFDs.  allowedValues: N/A | type: String  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| pfdData | It represents PFD data, containing the list of internal application identifiers and/or the list of application function identifiers for which the PFDs can be provided.  Absence of this attribute indicates that the PFDs for any internal application identifier and for any application function identifier can be provided.  allowedValues: N/A | type: PfdData  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| AfEventExposureData.afEvents | It represents AF Event(s) exposed by the NEF after registration of the AF(s) at the NEF.  allowedValues: N/A | type: String  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| afEeData | It represents the AF provided event exposure data. The NEF registers such information in the NRF on behalf of the AF.  allowedValues: N/A | type: AfEventExposureData  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedFqdnList | It represents pattern (regular expression according to the ECMA-262 dialect [75]) representing the Domain names served by the NEF.  allowedValues: N/A | type: String  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| dnaiList | It represents list of Data network access identifiers supported by the NEF. The absence of this attribute indicates that the NEF can be selected for any DNAI.  allowedValues: N/A | type: String  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| unTrustAfInfoList | It represents list of information corresponding to the AFs.  allowedValues: N/A | type: UnTrustAfInfo  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| UnTrustAfInfo.afId | It represents associated AF id.  allowedValues: N/A | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| UnTrustAfInfo. sNssaiInfoList | It represents S-NSSAIs and DNNs supported by the untrust AF.  allowedValues: N/A | type: SnssaiInfoItem  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| UnTrustAfInfo. mappingInd | When present, this attribute indicates whether the AF supports mapping between UE IP address (IPv4 address or IPv6 prefix) and UE ID (i.e. GPSI).  allowedValues: True, False  True: the AF supports mapping between UE IP address and UE ID;  False: the AF does not support mapping between UE IP address and UE ID. | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: False  isNullable: False |
| SnssaiInfoItem.sNssai | It represents supported S-NSSAI.  allowedValues: N/A | type: ExtSnssai  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| SnssaiInfoItem.dnnInfoList | It represents list of parameters supported by the NF per DNN.  allowedValues: N/A | type: DnnInfoItem  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| snssaiExtension | It represents extensions to the Snssai.  allowedValues: N/A | type: SnssaiExtension  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| SnssaiExtension.sdRanges | It shall contain the range(s) of Slice Differentiator values supported for the Slice/Service Type value indicated in the sst attribute of the Snssai data type (see clause 5.4.4.2 in TS 29.571[61). | type: SdRange  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| SnssaiExtension.wildcardSd | It indicates that all SD values are supported for the Slice/Service Type value indicated in the sst attribute of the Snssai data type (see clause 5.4.4.2 in TS 29.571[61]).  allowedValues: True, False | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: False  isNullable: False |
| SdRange.start | First value identifying the start of an SD range.  This string shall be formatted as specified for the sd attribute of the Snssai data type in clause 5.4.4.2 of TS 29.571 [61].  allowedValues: N/A | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| SdRange.end | Last value identifying the end of an SD range.  This string shall be formatted as specified for the sd attribute of the Snssai data type in clause 5.4.4.2 in TS 29.571 [61].  allowedValues: N/A | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| DnnInfoItem.dnn | It represents supported DNN or Wildcard DNN if the NF supports all DNNs for the related S-NSSAI. The DNN shall contain the Network Identifier and it may additionally contain an Operator Identifier. If the Operator Identifier is not included, the DNN is supported for all the PLMNs in the plmnList of the NF Profile.  allowedValues: N/A | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| uasNfFunctionalityInd | When present, this attribute shall indicate whether the NEF supports UAS NF functionality:  allowedValues: True, False  - True: UAS NF functionality is supported by the NEF.  - False: UAS NF functionality is not supported by the NEF. | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: False  isNullable: False |
| ausfInfo | It represents the information of an AUSF NF Instance (see TS 29.510 [23]).  allowedValues: N/A | type: AusfInfo  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| AUSFFunction.supiRanges | This attribute represents a list of ranges of SUPIs that can be served by the AUSF instance. (NOTE 1)  allowedValues: N/A | type: SupiRange  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| AUSFFunction.routingIndicators | This attribute represents a list of Routing Indicator information that allows to route network signalling with SUCI (see TS 23.003 [13]) to the AUSF instance.  If not provided, the AUSF can serve any Routing Indicator.  Pattern: '^[0-9]{1,4}$'  allowedValues: N/A | type: String  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| AUSFFunction.suciInfos | This attribute represents a list of SuciInfo. A SUCI that matches this information can be served by the AUSF. (NOTE 2, NOTE 3)  A SUCI that matches all attributes of at least one entry in this array shall be considered as a match of this information.  allowedValues: N/A | type: SuciInfo  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| smsfInfo | This attribute represents specific data for a SMSF.  allowedValues: N/A | type: SmsfInfo  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| roamingUeInd | This attribute indicates whether the SMSF can serve roaming UE:  - TRUE: the SMSF can support roaming UEs.  - FALSE: the SMSF can not support roaming UEs.  Absence of this IE indicates whether the SMSF can serve roaming UEs is not specified.  allowedValues: TRUE, FALSE | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| remotePlmnRangeList | This attribute indicates the list of ranges of remote PLMNs served by the SMSF, i.e. the SMSF can serve the roaming UEs which belong to the indicated remote PLMNs.  If the roamingUeInd attribute is present with the value "true", absence of remotePlmnRangeList indicates that the SMSF can serve roaming UEs from any remote PLMN.  allowedValues: N/A | type: PlmnRange  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| PlmnRange.start | This attribute indicates the first value identifying the start of a PLMN range.  The string shall be encoded as follows:  <MCC><MNC>  Pattern: '^[0-9]{3}[0-9]{2,3}$'  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| PlmnRange.end | This attribute indicates the last value identifying the end of a PLMN range.  The string shall be encoded as follows:  <MCC><MNC>  Pattern: '^[0-9]{3}[0-9]{2,3}$'  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| PlmnRange.pattern | This attribute indicates pattern (regular expression according to the ECMA-262 dialect [8]) representing the set of PLMNs belonging to this range. A PLMN value is considered part of the range if and only if the PLMN string (formatted as <MCC><MNC>) fully matches the regular expression.  To be noted, either the start and end attributes, or the pattern attribute, shall be present.  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| udrInfo | This attribute represents the information of an UDR NF Instance (see TS 29.510 [23]).  allowedValues: N/A | type: UdrInfo  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| udmInfo | This attribute represents the information of an UDM NF Instance (see TS 29.510 [23]).  allowedValues: N/A | type: UdmInfo  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| lmfInfo | This attribute represents information of an LMF NF Instance  allowedValues: N/A | type: LmfInfo  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| servingClientTypes | This attribute represents a list of external client type(s), e.g. emergency client. The NRF should only include this LMF instance to NF discovery with "client-type" query parameter indicating one of the external client types in the list.  Absence of this attribute means the LMF is not dedicated to serve specific client types.  allowedValues: see clause 6.1.6.3.3 of TS 29.572 [86]  "EMERGENCY\_SERVICES": External client for emergency services  "VALUE\_ADDED\_SERVICES": External client for value added services  "PLMN\_OPERATOR\_SERVICES": External client for PLMN operator services  "LAWFUL\_INTERCEPT\_SERVICES": External client for Lawful Intercept services  "PLMN\_OPERATOR\_BROADCAST\_SERVICES": External client for PLMN Operator Broadcast services  "PLMN\_OPERATOR\_OM": External client for PLMN Operator O&M  "PLMN\_OPERATOR\_ANONYMOUS\_STATISTICS": External client for PLMN Operator anonymous statistics  "PLMN\_OPERATOR\_TARGET\_MS\_SERVICE\_SUPPORT": External client for PLMN Operator target MS service support | type: ENUM  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| lmfId | This attribute represents the LMF identification. See clause 6.1.6.3.6 TS 29.572 [8]  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| servingAccessTypes | This attribute contains the access type (3GPP\_ACCESS and/or NON\_3GPP\_ACCESS) supported by the SMF.  If not included, it shall be assumed the both access types are supported.  allowedValues: "3GPP\_ACCESS", "NON\_3GPP\_ACCESS". | type: ENUM  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servingAnNodeTypes | This attribute contains the AN node type (i.e. gNB or NG-eNB) supported by the LMF.  If not included, it shall be assumed that all AN node types are supported.  allowedValues: "GNB","NG\_ENB" | type: ENUM  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servingRatTypes | This attribute contains the RAT type (e.g. 5G NR, eLTE or any of the RAT Types specified for NR satellite access) supported by the LMF.  If not included, it shall be assumed that all RAT types are supported  allowedValues: see clause 5.4.3.2 of TS 29.571 [61]. | type: String  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| LmfInfo.taiList | This attribute contains TAI list that the LMF can serve. It may contain one or more non-3GPP access TAIs.  The absence of both this attribute and the taiRangeList attribute indicates that the LMF can be selected for any TAI in the serving network.  allowedValues: N/A | type: TAI  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| LmfInfo.taiRangeList | This attribute contains TAI range list that the LMF can serve. It may contain one or more non-3GPP access TAI ranges. The absence of both this attribute and the taiList attribute indicates that the LMF can be selected for any TAI in the serving network.  allowedValues: N/A | type: TAIRange  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| supportedGADShapes | This attribute contains the GAD shapes supported by the LMF.  If not included, it doesn't indicate that the LMF doesn't support any GAD shapes.  allowedValues: see clause 6.1.6.3.4 of TS 29.572 [86]  "POINT" indicates Ellipsoid Point  "POINT\_UNCERTAINTY\_CIRCLE" indicates Ellipsoid point with uncertainty circle  "POINT\_UNCERTAINTY\_ELLIPSE" indicates Ellipsoid point with uncertainty ellipse  "POLYGON" indicates Polygon  "POINT\_ALTITUDE" indicates Ellipsoid point with altitude  "POINT\_ALTITUDE\_UNCERTAINTY" indicates Ellipsoid point with altitude and uncertainty ellipsoid  "ELLIPSOID\_ARC" indicates Ellipsoid Arc  "LOCAL\_2D\_POINT\_UNCERTAINTY\_ELLIPSE" indicates Local 2D point with uncertainty ellipse  "LOCAL\_3D\_POINT\_UNCERTAINTY\_ELLIPSOID" indicates Local 3D point with uncertainty ellipsoid | type: ENUM  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| SnssaiInfoItem | This attribute represents a list of S-NSSAIs and DNNs supported by the trusted AF.  allowedValues: N/A | type: SnssaiInfoItem  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| TrustAfInfo.afEvents | This attribute represents list of AF Event(s) supported by the trusted AF.  allowedValues: "SVC\_EXPERIENCE","UE\_MOBILITY", "UE\_COMM", "EXCEPTIONS", "USER\_DATA\_CONGESTION", "PERF\_DATA", "COLLECTIVE\_BEHAVIOUR", "DISPERSION", "MS\_QOE\_METRICS", "MS\_CONSUMPTION", "MS\_NET\_ASSIST\_INVOCATION", "MS\_DYN\_POLICY\_INVOCATION", "MS\_ACCESS\_ACTIVITY"  See clause 5.6.3.3 TS 29.517 [87]. | type: ENUM  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| TrustAfInfo.appIds | This attribute represents a list of Application ID(s) supported by the trusted AF. The absence of this attribute indicate that the AF can be selected for any Application.  allowedValues: N/A | type: String  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| internalGroupId | This attribute represents a list of Internal Group Identifiers supported by the trusted AF.  If not provided, it does not imply that the AF supports all internal groups.  String pattern: '^[A-Fa-f0-9]{8}-[0-9]{3}-[0-9]{2,3}-([A-Fa-f0-9][A-Fa-f0-9]){1,10}$'.  allowedValues: N/A | type: String  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| mappingInd | This attribute indicates whether the trusted AF supports mapping between UE IP address (IPv4 address or IPv6 prefix) and UE ID (i.e. SUPI).  TRUE: the trusted AF supports mapping between UE IP address and UE ID;  FALSE: the trusted AF does not support mapping between UE IP address and UE ID.  allowedValues: TRUE, FALSE | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: FALSE  isNullable: False |
| sNssaiEasdfInfoList | This attribute represents a list of parameters supported by the EASDF per S-NSSAI.  allowedValues: N/A | type: SnssaiEasdfInfoItem  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| easdfN6IpAddressList | This attribute represents N6 IP addresses of the EASDF.  allowedValues: N/A | type: IpAddr  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| upfN6IpAddressList | This attribute represents N6 IP addresses of PSA UPFs.  allowedValues: N/A | type: IpAddr  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| SnssaiEasdfInfoItem.sNssai | This attribute represents a S-NSSAI.  allowedValues: N/A | type: SnssaiExtension  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| SnssaiEasdfInfoItem.dnnEasdfInfoList | This attribute represents a list of parameters supported by the EASDF per DNN.  allowedValues: N/A | type: DnnEasdfInfoItem  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| DnnEasdfInfoItem.dnn | This attribute represents a supported DNN or Wildcard DNN if the EASDF supports all DNNs for the related S-NSSAI.  The DNN shall contain the Network Identifier and it may additionally contain an Operator Identifier. If the Operator Identifier is not included, the DNN is supported for all the PLMNs in the plmnList of the NF Profile.  allowedValues: N/A | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| NssafInfo.supiRanges | This attribute represents a List of ranges of SUPIs that can be served by the NSSAAF instance.  allowedValues: N/A | type: SupiRange  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| NssafInfo.internalGroupIdentifiersRanges | This attribute represents a List of ranges of Internal Group Identifiers that can be served by the NSSAAF instance. If not provided, it does not imply that the NSSAAF supports all internal groups.  allowedValues: N/A | type: InternalGroupIdRange  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedUdrInfo | This attribute contains all the udrInfo attributes locally configured in the NRF or the NRF received during NF registration. The key of the map is the nfInstanceId of which the udrInfo belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedUdmInfo | This attribute contains all the udmInfo attributes locally configured in the NRF or the NRF received during NF registration. The key of the map is the nfInstanceId of which the udmInfo belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedAusfInfo | This attribute contains all the ausfInfo attributes locally configured in the NRF or the NRF received during NF registration. The key of the map is the nfInstanceId of which the ausfInfo belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedNwdafInfo | This attribute contains all the nwdafInfo attributes locally configured in the NRF or the NRF received during NF registration. The key of the map is the nfInstanceId of which the nwdafInfo belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedLmfInfo | This attribute contains all the lmfInfo attributes locally configured in the NRF or the NRF received during NF registration. The key of the map is the nfInstanceId of which the lmfInfo belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedUdsfInfo | This attribute contains all the udsfInfo attributes locally configured in the NRF or the NRF received during NF registration. The key of the map is the nfInstanceId to which the map entry belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedTrustAfInfo | This attribute contains the trustAfInfo attribute locally configured in the NRF or that the NRF received during AF registration. The key of the map is the nfInstanceId to which the map entry belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedNssaafInfo | This attribute contains all the nssaafInfo attributes locally configured in the NRF or the NRF received during NF registration. The key of the map is the nfInstanceId of which the nssaafInfo belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| chfInfo | It represents the information of an AUSF NF Instance (see TS 29.510 [23]).  allowedValues: N/A | type: ChfInfo  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| ChfInfo.supiRangeList | This attribute represents the list of ranges of SUPIs that can be served by the CHF instance.  allowedValues: N/A | type: SupiRange  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| ChfInfo.gpsiRangeList | This attribute represents the list of ranges of GPSI that can be served by the CHF instance.  allowedValues: N/A | type: IdentityRange  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| ChfInfo.plmnRangeList | This attribute represents the list of ranges of PLMNs (including the PLMN IDs of the CHF instance) that can be served by the CHF instance. If not provided, the CHF can serve any PLMN.  allowedValues: N/A | type: PlmnRange  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| ChfInfo.groupId | This attribute represents the identity of the CHF group that is served by the CHF instance.  If not provided, the CHF instance does not pertain to any CHF group.  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| ChfInfo.primaryChfInstance | This attribute represents the NF Instance Id of the primary CHF instance.  This attribute shall be absent if the secondaryChfInstance is present.  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| ChfInfo.secondaryChfInstance | This attribute represents the NF Instance Id of the secondary CHF instance.  This attribute shall be absent if the primaryChfInstance is present.  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| mfafInfo | This attribute represents information of an MFAF NF Instance.  allowedValues: N/A | type: MfafInfo  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| MfafInfo.servingNfTypeList | This attribute represents a List of NF type(s) served by MFAF NF. The absence of this attribute indicates that the MFAF can be selected for any NF type  allowedValues: N/A | type: NFType  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| MfafInfo.servingNfSetIdList | This attribute represents a List of NF Set Id(s) served by MFAF NF. The absence of this attribute indicates that the MFAF can be selected for any NF Set Id.  allowedValues: N/A | type: String  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| MfafInfo.taiList | This attribute represents a List of TAIs the MFAF can serve. It may contain one or more non-3GPP access TAIs. The absence of both this attribute and the taiRangeList attribute indicates that the MFAF can be selected for any TAI in the serving network.  allowedValues: N/A | type: Tai  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| MfafInfo.taiRangeList | This attribute represents the range of TAIs the MFAF can serve. It may contain one or more non-3GPP access TAI ranges. The absence of both this attribute and the taiList attribute indicates that the MFAF can be selected for any TAI in the serving network.  allowedValues: N/A | type: TaiRange  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| dccfInfo | This attribute represents information of an DCCF NF Instance  allowedValues: N/A | type: DccfInfo  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| DccfInfo.servingNfTypeList | This attribute represents the list of NF type(s) from which the DCCF NF can collect data. The absence of this attribute indicates that the DCCF can collect data from any NF type.  allowedValues: N/A | type: NFType  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| DccfInfo.servingNfSetIdList | This attribute represents the list of NF Set Id(s) from which the DCCF NF can collect data. The absence of this attribute indicates that the DCCF can collect data from any NF Set.  allowedValues: N/A | type: String  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| DccfInfo.taiList | This attribute represents the list of TAIs the DCCF can serve. It may contain one or more non-3GPP access TAIs. The absence of both this attribute and the taiRangeList attribute indicates that the DCCF can be selected for any TAI in the serving network.  allowedValues: N/A | type: TAI  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| DccfInfo.taiRangeList | This attribute represents the range of TAIs the DCCF can serve. It may contain one or more non-3GPP access TAI ranges. The absence of both this attribute and the taiList attribute indicates that the DCCF can be selected for any TAI in the serving network.  allowedValues: N/A | type: TAIRange  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| amfInfo | This attribute represents information of an AMF NF Instance.  allowedValues: N/A | type: AmfInfo  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| smfInfo | This attribute represents information of an SMF NF Instance.  allowedValues: N/A | type: SmfInfo  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| upfInfo | This attribute represents information of an UPF NF Instance.  allowedValues: N/A | type: UpfInfo  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| pcfInfo | This attribute represents information of a PCF NF Instance.  allowedValues: N/A | type: PcfInfo  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| nefInfo | This attribute represents information of an NEF NF Instance.  allowedValues: N/A | type: NefInfo  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| servedUdrInfoList | This attribute contains list of UdrInfo attribute locally configured in the NRF or that the NRF received during NF registration. The key of the map is the nfInstanceId to which the map entry belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedUdmInfoList | This attribute contains list of UdmInfo attribute locally configured in the NRF or that the NRF received during NF registration. The key of the map is the nfInstanceId to which the map entry belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedAusfInfoList | This attribute contains list of AusfInfo attribute locally configured in the NRF or that the NRF received during NF registration. The key of the map is the nfInstanceId to which the map entry belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedAmfInfo | This attribute contains all the amfInfo attributes locally configured in the NRF or the NRF received during NF registration. The key of the map is the nfInstanceId of which the amfInfo belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedAmfInfoList | This attribute contains list of AmfInfo attribute locally configured in the NRF or that the NRF received during NF registration. The key of the map is the nfInstanceId to which the map entry belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedSmfInfo | This attribute contains all the smfInfo attributes locally configured in the NRF or the NRF received during NF registration. The key of the map is the nfInstanceId of which the smfInfo belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedSmfInfoList | This attribute contains list of SmfInfo attribute locally configured in the NRF or that the NRF received during NF registration. The key of the map is the nfInstanceId to which the map entry belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedUpfInfo | This attribute contains all the upfInfo attributes locally configured in the NRF or the NRF received during NF registration. The key of the map is the nfInstanceId of which the upfInfo belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedUpfInfoList | This attribute contains list of UpfInfo attribute locally configured in the NRF or that the NRF received during NF registration. The key of the map is the nfInstanceId to which the map entry belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedPcfInfo | This attribute contains all the pcfInfo attributes locally configured in the NRF or the NRF received during NF registration. The key of the map is the nfInstanceId of which the pcfInfo belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedPcfInfoList | This attribute contains list of PcfInfo attribute locally configured in the NRF or that the NRF received during NF registration. The key of the map is the nfInstanceId to which the map entry belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedBsfInfo | This attribute contains all the bsfInfo attributes locally configured in the NRF or the NRF received during NF registration. The key of the map is the nfInstanceId of which the bsfInfo belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedBsfInfoList | This attribute contains list of BsfInfo attribute locally configured in the NRF or that the NRF received during NF registration. The key of the map is the nfInstanceId to which the map entry belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedChfInfo | This attribute contains all the chfInfo attributes locally configured in the NRF or the NRF received during NF registration. The key of the map is the nfInstanceId of which the chfInfo belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedChfInfoList | This attribute contains list of ChfInfo attribute locally configured in the NRF or that the NRF received during NF registration. The key of the map is the nfInstanceId to which the map entry belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedNefInfo | This attribute contains all the nefInfo attributes locally configured in the NRF or the NRF received during NF registration. The key of the map is the nfInstanceId of which the nefInfo belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedNwdafInfoList | This attribute contains list of nwdafInfo attributes locally configured in the NRF or the NRF received during NF registration. The key of the map is the nfInstanceId to which the map entry belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedGmlcInfo | This attribute contains all the gmlcInfo attributes locally configured in the NRF or the NRF received during NF registration. The key of the map is the nfInstanceId of which the nefInfo belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedUdsfInfoList | This attribute contains list of UdsfInfo attribute locally configured in the NRF or that the NRF received during NF registration. The key of the map is the nfInstanceId to which the map entry belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedScpInfoList | This attribute contains list of ScpInfo attribute locally configured in the NRF or that the NRF received during NF registration. The key of the map is the nfInstanceId to which the map entry belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedSeppInfoList | This attribute contains list of SeppInfo attribute locally configured in the NRF or that the NRF received during NF registration. The key of the map is the nfInstanceId to which the map entry belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| AanfInfo.routingIndicators | This attribute represents the List of Routing Indicators supported by the AAnf instance. If not provided, the AAnf can serve any Routing Indicator.  Pattern: '^[0-9]{1,4}$'  allowedValues: N/A | type: String  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| aanfInfo | This attribute represents information of an AANF NF Instance.  allowedValues: N/A | type: AanfInfo  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| tsctsfInfo | This attribute represents information of an TSCTSF NF Instance.  allowedValues: N/A | type: TsctsfInfo  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| TsctsfInfo.sNssaiInfoList | This attribute represents the S-NSSAIs and DNNs supported by the TSCTSF. The key of the map shall be a (unique) valid JSON string per clause 7 of IETF RFC 8259 [92], with a maximum of 32 characters.  allowedValues: N/A | type: SnssaiTsctsfInfoItem  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| TsctsfInfo.externalGroupIdentifiersRanges | This attribute represents the ranges of External Group Identifiers that can be served by the TSCTSF.  The absence of this IE indicates that the TSCTSF can serve any external group managed by the PLMN (or SNPN) of the TSCTSF instance.  allowedValues: N/A | type: IdentityRange  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| TsctsfInfo.supiRanges | This attribute represents the ranges of SUPIs that can be served by the TSCTSF instance.  allowedValues: N/A | type: SupiRange  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| TsctsfInfo.gpsiRanges | This attribute represents the ranges of GPSIs that can be served by the TSCTSF instance.  allowedValues: N/A | type: IdentityRange  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| TsctsfInfo.internalGroupIdentifiersRanges | This attribute represents the ranges of Internal Group Identifiers that can be served by the TSCTSF instance.  The absence of this IE indicates that the TSCTSF can serve any internal group managed by the PLMN (or SNPN) of the TSCTSF instance.  allowedValues: N/A | type: InternalGroupIdRange  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servingClientTypes | This attribute shall be present if the GMLC is dedicated to serve the listed external client type(s), e.g. emergency client.  Absence of this attribute means the GMLC is not dedicated to serve specific client types.  See clause 6.1.6.3.3 TS 29.572 [86].  allowedValues:  "EMERGENCY\_SERVICES": External client for emergency services  "VALUE\_ADDED\_SERVICES": External client for value added services  "PLMN\_OPERATOR\_SERVICES": External client for PLMN operator services  "LAWFUL\_INTERCEPT\_SERVICES": External client for Lawful Intercept services  "PLMN\_OPERATOR\_BROADCAST\_SERVICES": External client for PLMN Operator Broadcast services  "PLMN\_OPERATOR\_OM": External client for PLMN Operator O&M  "PLMN\_OPERATOR\_ANONYMOUS\_STATISTICS": External client for PLMN Operator anonymous statistics  "PLMN\_OPERATOR\_TARGET\_MS\_SERVICE\_SUPPORT": External client for PLMN Operator target MS service support | type: <<enumeration>>  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| gmlcNumbers | This attribute represents each item of the array shall carry an OctetString indicating the ISDN number of the GMLC in international number format as described in ITU-T Rec. E.164 [94] and shall be encoded as a TBCD-string.  Pattern for string: "^[0-9]{5,15}$"  allowedValues: N/A | type: String  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| gmlcInfo | This attribute represents information of an GMLC NF Instance.  allowedValues: N/A | type: GmlcfInfo  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| nTNPLMNRestrictionsList | This attribute defines the location restrictions per PLMN that relates to non-terrestrial network access. | type: NTNPLMNRestrictionsInfo  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| blockedLocationInfoList | This defines the information related with the location for which the access restrictions are to be applied in case of NTN. | type: BlockedLocationInfo  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| blockedLocation | This provides the geographical location at which the PLMN are not allowed in case of NTN. | type: PLMNId  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| blockedDurWindow | This provides the time durations for which the PLMN are not allowed at a given location in case of NTN | type: TimeWindow  multiplicity: \*  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| blockedDurStartTime | This provides the start time starting which the PLMN is not allowed at a given location in case of NTN | type: DateTime  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| blockedDurEndTime | This provides the end time after which the PLMN is not allowed at a given location in case of NTN | type: DateTime  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| blockedSlice | This provides the slice for which the access is not allowed at a given location in case of NTN. | type: S-NSSAI  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| nwdafLogicalFuncSupported | It represents the logical functions supported by the NWDAF.  If not present, the NWDAF shall be regarded with no logical decomposition, in that case the NWDAF only supports the analytics services.  allowedValues:  “NWDAF\_WITH\_ANLF” indicates the NWDAF containing Analytics logical function (AnLF),  “NWDAF\_WITH\_MTLF” indicates the NWDAF containing Model Training logical function (MTLF),  “NWDAF\_WITH\_ANLF\_MTLF” indicates the NWDAF containing both Analytics logical function (AnLF) and Model Training logical function (MTLF). | type: ENUM  multiplicity: 0..1  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| satelliteCoverageInfoList | This attribute defines the information related to NR Satellite RAT type and corresponding information of satellite coverage | type: SatelliteCoverageInfo  multiplicity: \*  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| nRSatelliteRATtype | This attribute defines the RAT Type for NR satellite access.  allowedValues:  “NRLEO”  “NRMEO”  “NRGEO”  “NROTHERSAT” | type: ENUM  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| locationInfo | This attribute defines the information about location and corresponding time windows for which the satellite coverage will be available or unavailable. | type: NtnLocationInfo  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| location | This defines the Location (geographical area) under consideration to which the satellite coverage info belongs | type: GeoArea  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| availabilityWindows | This attribute defines the list of time windows at which the satellite coverage will be available for this location. Either availabilityWindows or nonAvailabilityWindows shall be present. | type: TimeWindow  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| nonAvailabilityWindows | This attribute defines the list of time windows at which the satellite coverage will not be available for this location. Either availabilityWindows or nonAvailabilityWindows shall be present. | type: TimeWindow  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| n2InterfaceAmfInfo | This attribute represents the N2 interface information of the AMF.  allowedValues: N/A | type: n2InterfaceAmfInfo  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| N2InterfaceAmfInfo.ipv4EndpointAddress | This attribute represents available AMF endpoint IPv4 address(es) for N2.  allowedValues: N/A | type: Ipv4Addr  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| N2InterfaceAmfInfo.ipv6EndpointAddress | This attribute represents available AMF endpoint IPv6 address(es) for N2.  allowedValues: N/A | type: Ipv6Addr  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| N2InterfaceAmfInfo.amfName | This attribute represents AMF Name FQDN as defined in clause 28.3.2.5 of TS 23.003 [13]  allowedValues: N/A | type: Fqdn  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| amfOnboardingCapability | This attribute indicates the AMF supports SNPN Onboarding capability. This is used for the case of Onboarding of UEs for SNPNs (see TS 23.501 [2], clause 5.30.2.10).  - FALSE: AMF does not support SNPN Onboarding;  - TRUE: AMF supports SNPN Onboarding.  allowedValues: TRUE, FALSE | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: FALSE  isNullable: False |
| highLatencyCom | This attribute indicates whether the AMF supports High Latency communication (e.g. for NR RedCap UE). This is used for CP NF to discover AMF supporting High Latency communication (see TS 23.501 [2], clause 6.3.5).  - FALSE: AMF does not support High Latency communication e.g. for NR RedCap UE;  - TRUE: AMF supports High Latency communication e.g. for NR RedCap UE;  allowedValues: TRUE, FALSE | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| ismfSupportInd | This attribute may be used by an SMF to explicitly indicate the support of I-SMF capability and its preference to be selected as I-SMF.  When present, this attribute shall indicate whether the I-SMF capability are supported by the SMF:  - TRUE: I-SMF capability supported by the SMF  - FALSE: I-SMF capability not supported by the SMF.  Absence of this attribute indicates the I-SMF capability support of the SMF is not specified.  allowedValues: TRUE, FALSE | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| smfOnboardingCapability | This attribute indicates the SMF supports SNPN Onboarding capability and User Plane Remote Provisioning. This is used for the case of Onboarding of UEs for SNPNs (see TS 23.501 [2], clauses 5.30.2.10 and 6.2.6.2).  - FALSE: SMF does not support SNPN Onboarding;  - TRUE: SMF supports SNPN Onboarding.  allowedValues: TRUE, FALSE | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: FALSE  isNullable: False |
| smfUPRPCapability | This attribute IE indicates the SMF supports User Plane Remote Provisioning (UPRP) capability. This is used for the case of Onboarding of UEs for SNPNs (see TS 23.501 [2], clauses 5.30.2.10 and 6.2.6.2).  - FALSE: SMF does not support UPRP;  - TRUE: SMF supports UPRP.  allowedValues: TRUE, FALSE | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: FALSE  isNullable: False |
| sNssaiUpfInfoList | This attribute represents a list of parameters supported by the UPF per S-NSSAI.  allowedValues: N/A | type: SnssaiUpfInfoItem  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| sxaInd | This attribute indicates whether the UPF is configured to support Sxa interface.  TRUE: Supported  FALSE: Not Supported  allowedValues: TRUE, FALSE | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| a2xSupportInd | This attribute indicates whether A2X Policy/Parameter provisioning is supported by the PCF.  TRUE: Supported FALSE: Not Supported  allowedValues: TRUE, FALSE | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: FALSE  isNullable: False |
| a2xCapability | This attribute shall be present if the PCF supports A2X Capability.  When present, this attribute shall indicate the supported A2X Capability by the PCF.  allowedValues: N/A | type: A2xCapability  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| rangingSlPosSupportInd | Indicates whether ranging and sidelink positioning capability is supported by the PCF.  TRUE: Supported FALSE: Not Supported  allowedValues: TRUE, FALSE | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: FALSE  isNullable: False |
| A2xCapability.lteA2x | This attribute indicates whether the PCF supports LTE A2X capability:  - TRUE: LTE A2X capability is supported by the PCF  - FALSE: LTE A2X capability is not supported by the PCF.  allowedValues: TRUE, FALSE | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: FALSE  isNullable: False |
| A2xCapability.nrA2x | This attribute indicates whether the PCF supports NR A2X capability:  - TRUE: NR A2X capability is supported by the PCF  - FALSE: NR A2X capability is not supported by the PCF.  allowedValues: TRUE, FALSE | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: FALSE  isNullable: False |
| multiMemAfSessQosInd | This attribute indicates whether the NEF supports Multi-member AF session with required QoS functionality:  - TRUE: Multi-member AF session with required QoS functionality is supported by the NEF  - FALSE: Multi-member AF session with required QoS functionality is not supported by the NEF.  allowedValues: TRUE, FALSE | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: FALSE  isNullable: False |
| memberUESelAssistInd | This attribute indicates whether the NEF supports member UE selection assistance functionality:  - TRUE: member UE selection assistance functionality is supported by the NEF  - FALSE: member UE selection assistance functionality is not supported by the NEF.  allowedValues: TRUE, FALSE | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: FALSE  isNullable: False |
| mbUpfInfo | This attribute represents information of an MB-UPF NF Instance.  allowedValues: N/A | type: MbUpfInfo  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| mbUpfInfo.sNssaiMbUpfInfoList | This attribute represents the list of parameters supported by the MB-UPF per S-NSSAI.  allowedValues: N/A | type: SnssaiUpfInfoItem  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| mbUpfInfo.mbSmfServingArea | This attribute represents the MB-SMF service area(s) the MB-UPF can serve.  If not provided, the MB-UPF can serve any MB-SMF service area.  allowedValues: N/A | type: String  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| mbUpfInfo.interfaceMbUpfInfoList | This attribute represents the list of User Plane interfaces configured on the MB-UPF. When this IE is provided in the NF Discovery response, the NF Service Consumer (e.g. MB-SMF) may use this information for MB-UPF selection.  allowedValues: N/A | type: InterfaceUpfInfoItem  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| mbUpfInfo.taiList | This attribute represents the list of TAIs the MB-UPF can serve.  The absence of this attribute and the taiRangeList attribute indicates that the MB-UPF can serve the whole MB-SMF service area defined by the MbSmfServingArea attribute.  allowedValues: N/A | type: Tai  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| mbUpfInfo.taiRangeList | This attribute represents the range of TAIs the MB-UPF can serve.  The absence of this attribute and the taiList attribute indicates that the MB-UPF can serve the whole MB-SMF service area defined by the MbSmfServingArea attribute.  allowedValues: N/A | type: Tairange  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| mbUpfInfo.priority | This attribute represents priority (relative to other NFs of the same type) in the range of 0-65535, to be used for NF selection for a service request matching the attributes of the MbUpfInfo; lower values indicate a higher priority.  See the precedence rules in the description of the priority attribute in NFProfile, if Priority is also present in NFProfile.  The NRF may overwrite the received priority value when exposing an NFProfile with the Nnrf\_NFDiscovery service.  allowedValues: N/A | type: Integer  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| SnssaiUpfInfoItem.sNssai | It represents supported S-NSSAI.  allowedValues: N/A | type: ExtSnssai  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| SnssaiUpfInfoItem.dnnUpfInfoList | This attribute represents a list of parameters supported by the UPF per DNN.  allowedValues: N/A | type: DnnUpfInfoItem  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| SnssaiUpfInfoItem.redundantTransport | This attribute indicates whether the UPF supports redundant transport path on the transport layer in the corresponding network slice.  allowedValues:  TRUE: supported FALSE: not supported | type: Boolean  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: FALSE  isNullable: False |
| DnnUpfInfoItem.dnaiList | This attribute represents a list of Data network access identifiers supported by the UPF for this DNN. The absence of this attribute indicates that the UPF can be selected for this DNN for any DNAI.  Each item in the list is the DNAI (Data network access identifier), see TS 23.501 [2].  allowedValues: N/A | type: String  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| DnnUpfInfoItem.pduSessionTypes | This attribute represents a list of PDU session type(s) supported by the UPF for a specific DNN. The absence of this attribute indicates that the UPF can be selected for this DNN for any PDU session type supported by the UPF (see clause 6.1.6.2.13).  allowedValues:  “IPv4” “IPv6” “IPv4v6” as per clause 5.8.2.2.1 TS 23.501 [2] “UNSTRUCTURED” “ETHERNET” | type: <<enumeration>>  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| DnnUpfInfoItem.ipv4AddressRanges | This attribute represents a list of ranges of IPv4 addresses handled by UPF.  allowedValues: N/A | type: Ipv4AddressRange  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| DnnUpfInfoItem.ipv6PrefixRanges | This attribute represents a list of ranges of IPv6 prefixes handled by the UPF.  allowedValues: N/A | type: Ipv6PrefixRange  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| DnnUpfInfoItem.natedIpv4AddressRanges | This attribute represents a list of ranges of NATed IPv4 addresses.  allowedValues: N/A | type: Ipv4AddressRange  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| DnnUpfInfoItem.natedIpv6PrefixRanges | This attribute represents a list of ranges of NATed IPv6 prefixes.  allowedValues: N/A | type: Ipv6PrefixRange  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| DnnUpfInfoItem.ipv4IndexList | This attribute represents a list of Ipv4 Index supported by the UPF.  This <<choice>> represents the IP Index to be sent from UDM to the SMF. (See clause 6.1.6.2.77 TS 29.503 [97])  It is a list of non-exclusive alternatives (Integer or String).  allowedValues: N/A | type: <<choice>>  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| DnnUpfInfoItem.ipv6IndexList | This attribute represents a list of Ipv6 Index supported by the UPF.  This <<choice>> represents the IP Index to be sent from UDM to the SMF. (See clause 6.1.6.2.77 TS 29.503 [97])  It is a list of non-exclusive alternatives (Integer or String).  allowedValues: N/A | type: <<choice>>  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| DnnUpfInfoItem.networkInstance | This attribute represents the N6 Network Instance (See TS 29.244 [56]) associated with the S-NSSAI and DNN.  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| DnnUpfInfoItem.dnaiNwInstanceList | This attribute represents a map of a network instance per DNAI for the DNN, where the key of the map is the DNAI (Data network access identifier), see TS 23.501 [2].  When present, the value of each entry of the map shall contain a N6 network instance that is configured for the DNAI indicated by the key.  allowedValues: N/A | type: String  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| mbSmfInfo | This attribute represents information of an MB-SMF NF Instance  allowedValues: N/A | type: MbSmfInfo  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| MbSmfInfo.sNssaiInfoList | This attribute represents the list of S-NSSAIs and DNNs supported by the MB-SMF.  The key of the map shall be a (unique) valid JSON string per clause 7 of IETF RFC 8259 [92], with a maximum of 32 characters.  allowedValues: N/A | type: NFType  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| MbSmfInfo.tmgiRangeList | This attribute represents the list of TMGI range(s) supported by the MB-SMF  The key of the map shall be a (unique) valid JSON string per clause 7 of IETF RFC 8259 [92], with a maximum of 32 characters.  allowedValues: N/A | type: TmgiRange  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| MbSmfInfo.taiList | This attribute represents the list of TAIs the MB-SMF can serve.  The absence of this attribute and the taiRangeList attribute indicates that the MB-SMF can be selected for any TAI in the serving network.  allowedValues: N/A | type: TAI  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| MbSmfInfo.taiRangeList | This attribute represents the range of TAIs the MB-SMF can serve.  The absence of this attribute and the taiList attribute indicates that the MB-SMF can be selected for any TAI in the serving network.  allowedValues: N/A | type: TAIRange  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| MbSmfInfo.mbsSessionList | This attribute represents the list of MBS sessions currently served by the MB-SMF  The key of the map shall be a (unique) valid JSON string per clause 7 of IETF RFC 8259 [92], with a maximum of 32 characters.  allowedValues: N/A | type: MbsSession  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| mbsServiceIdStart | This attribute represents the first MBS Service ID value identifying the start of a TMGI range.  The value shall be coded as defined for the mbsServiceId attribute of the Tmgi data type defined in 3GPP TS 29.571 [61].  Pattern: '^[A-Fa-f0-9]{6}$'s.  allowedValues: N/A | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| mbsServiceIdEnd | This attribute represents the last MBS Service ID value identifying the end of a TMGI range.  The value shall be coded as defined for the mbsServiceId attribute of the Tmgi data type defined in 3GPP TS 29.571 [61].  Pattern: '^[A-Fa-f0-9]{6}$  allowedValues: N/A | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| mbsServiceId | This attribute represents MBS Service ID consisting of a 6-digit fixed-length hexadecimal number between 000000 and FFFFFF.  Each character in the string shall take a value of "0" to "9", "a" to "f" or "A" to "F" and shall represent 4 bits. The most significant character representing the 4 most significant bits of the MBS Service ID shall appear first in the string, and the character representing the 4 least significant bit of the MBS Service ID shall appear last in the string.  Pattern: '^[A-Fa-f0-9]{6}$'  allowedValues: N/A | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| Ssm.sourceIpAddr | This attribute represents IP unicast address used as source address in IP packets for identifying the source of the multicast service (e.g. AF/AS).  allowedValues: N/A | type: IpAddr  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| Ssm.destIpAddr | This attribute represents IP multicast address used as destination address in related IP packets for identifying the multicast service associated with the source.  allowedValues: N/A | type: IpAddr  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| MbsSession.mbsSessionId | This attribute represents the MBS Session Identifier.  allowedValues: N/A | type: MbsSessionId  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| MbsSession.mbsAreaSessions | This attribute represents map of Area Session Id and related MBS Service Area information used for MBS session with location dependent content. The Area Session ID together with the mbsSessionId (TMGI) uniquely identifies the MBS session in a specific MBS service area.  For an MBS session with location dependent content, one map entry shall be registered for each MBS Service Area served by the MBS session.  The key of the map shall be the areaSessionId. | type: MbsServiceAreaInfo  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| MbsServiceAreaInfo.areaSessionId | This attribute represents Area Session Identifier used for MBS session with location dependent content.  allowedValues: 0..65535 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| MbsServiceAreaInfo.mbsServiceArea | This attribute represents MBS Service Area for MBS session with location dependent content.  allowedValues: N/A | type: MbsServiceArea  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| MbsServiceArea.ncgiList | This attribute represents a list of NR cell ids with their pertaining TAIs.  allowedValues: N/A | type: Ncgi  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| plmnId | This attribute represents a PLMN Identity.  allowedValues: N/A | Type: PLMNId  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| nrCellId | This attribute represents NR Cell Identity.  It's a 36-bit string identifying an NR Cell Id as specified in clause 9.3.1.7 of TS 38.413 [5], in hexadecimal representation. Each character in the string shall take a value of "0" to "9", "a" to "f" or "A" to "F" and shall represent 4 bits. The most significant character representing the 4 most significant bits of the Cell Id shall appear first in the string, and the character representing the 4 least significant bit of the Cell Id shall appear last in the string.  Pattern: '^[A-Fa-f0-9]{9}$'  Example:  An NR Cell Id 0x225BD6007 shall be encoded as "225BD6007".  allowedValues: N/A | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| HssInfo.groupId | This attribute defines the identity of the HSS group that is served by the HSS instance.  If not provided, the HSS instance does not pertain to any HSS group.  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| HssInfo.imsiRanges | This attribute defines the list of ranges of IMSIs whose profile data is available in the HSS instance.  allowedValues: N/A | type: ImsiRange  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| HssInfo.imsPrivateIdentityRanges | This attribute defines the list of ranges of IMS Private Identities whose profile data is available in the HSS instance.  allowedValues: N/A | type: IdentityRange  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| HssInfo.imsPublicIdentityRanges | This attribute defines the list of ranges of IMS Public Identities whose profile data is available in the HSS instance (NOTE 1)  allowedValues: N/A | type: IdentityRange  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| HssInfo.msisdnRanges | This attribute defines the list of ranges of MSISDNs whose profile data is available in the HSS instance.  allowedValues: N/A | type: IdentityRange  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| HssInfo.externalGroupIdentifiersRanges | This attribute defines the list of ranges of external group IDs that can be served by this HSS instance.  If not provided, the HSS instance does not serve any external groups.  allowedValues: N/A | type: IdentityRange  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| HssInfo.hssDiameterAddress | This attribute defines the Diameter Address of the HSS  allowedValues: N/A | type: NetworkNodeDiameterAddress  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| HssInfo.additionalDiamAddresses | This attribute defines the Additional Diameter Addresses of the HSS;  may be present if hssDiameterAddress is present  allowedValues: N/A | type: NetworkNodeDiameterAddress  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| NetworkNodeDiameterAddress.name | This attribute indicates the Diameter name of the network node diameter address. See TS 29.571 [61]. String contains a Diameter Identity (FQDN).  allowedValues: N/A | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| NetworkNodeDiameterAddress.realm | This attribute indicates the Diameter realm of the network node diameter addres. See TS 29.571 [61]. String contains a Diameter Identity (FQDN).  allowedValues: N/A | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| ImsiRange.start | This attribute indicates the first value identifying the start of a IMSI range.  Pattern: "^[0-9]+$"  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| ImsiRange.end | This attribute indicates the last value identifying the end of a IMSI range.  Pattern: "^[0-9]+$"  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| ImsiRange.pattern | This attribute indicates pattern (regular expression according to the ECMA-262 dialect [75]) representing the set of IMSIs belonging to this range. An IMSI value is considered part of the range if and only if the IMSI string fully matches the regular expression.  Either the start and end attributes, or the pattern attribute, shall be present.  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| mnpfInfo | This attribute represents information of an MNPF NF Instance  allowedValues: N/A | type: MnpfInfo  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| MnpfInfo.msisdnRanges | This attribute represents the list of ranges of MSISDNs whose portability status is available in the MNPF.  allowedValues: N/A | type: IdentityRange  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| activationStatus | It describes the activation status.  allowedValues: ACTIVATED, DEACTIVATED. | Type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| mLModelRefList | This attribute holds a DN list of MLModel (See TS 28.105 [105]) . | type: DN  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| aIMLInferenceFunctionRefList | This attribute holds a DN list of AIMLInferenceFunction (See TS 28.105 [105]) . | type: DN  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| TrustAfInfo.sNssaiInfoList | It represents S-NSSAIs and DNNs supported by the trust AF.  allowedValues: N/A | type: SnssaiInfoItem  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| SnssaiTsctsfInfoItem.dnnInfoList | It represents list of parameters supported by the TSCTSF per DNN.  allowedValues: N/A | type: DnnTsctsfInfoItem  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| DnnTsctsfInfoItem.dnn | It represents supported DNN or Wildcard DNN if the TSCTSF supports all DNNs for the related S-NSSAI. The DNN shall contain the Network Identifier and it may additionally contain an Operator Identifier. If the Operator Identifier is not included, the DNN is supported for all the PLMNs in the plmnList of the NF Profile.  allowedValues: N/A | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| mlModelInterInfo | This attribute defines the list of NWDAF vendors that are allowed to retrieve ML models from the NWDAF containing MTLF. The absence of this attribute indicates that none of the NWDAF vendors can retrieve the ML models.  allowedValues: 6 decimal digits; if the SMI code has less than 6 digits, it shall be padded with leading digits "0" to complete a 6-digit string value. | type: String  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| flCapabilityType | This attribute defines the federated learning capability type supported by NWDAF containing MTLF.  allowedValues:  “FL\_SERVER” indicates NWDAF containing MTLF as Federated Learning Server,  “FL\_CLIENT” indicates NWDAF containing MTLF as Federated Learning Client,  “FL\_SERVER\_AND\_CLIENT” indicates NWDAF containing MTLF as Federated Learning Server and Client. | type: ENUM  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| flTimeInterval | This attribute defines the time window at which the indicated flCapabilityType supported by NWDAF MTLF is available. This attribute shall be present only if flCapabilityType attribute is present.  allowedValues: N/A | type: TimeWindow  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: True |
| qFMonitoredSatelliteBackhaulCategories | It specifies the satellite backhaul categories for which the QoS monitoring per QoS flow per UE is to be performed.  allowedValues:  "DYNAMIC\_GEO"  "DYNAMIC\_MEO"  "DYNAMIC\_LEO"  "DYNAMIC\_OTHER\_SAT" | type: ENUM  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| AMFFunction.sliceExpiryInfo | This provides information related to a network slice validity. | type: SliceExpiryInfo  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| expiryTime | This attribute provides information about the time at which the slice is scheduled to be expired as it is not required anymore.  This attribute will be set based on the sliceAvailability coming as part of ServiceProfile. | type: DateTime  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| servedPcscfInfoList | This attribute contains all the pcscfInfo attributes locally configured in the NRF or the NRF received during NF registration. The key of the map is the nfInstanceId to which the map entry belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedNfInfo | This attribute contains information of other NFs without corresponding NF type specific Info extensions locally configured in the NRF or the NRF received during NF registration. The key of the map is the nfInstanceId of the NF.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedAanfInfoList | This attribute contains the aanfInfoList attribute locally configured in the NRF or that the NRF received during NF registration. The key of the map is the nfInstanceId to which the map entry belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| PcscfInfo.dnnList | This attribute represents DNNs supported by the P-CSCF. The DNN shall contain the Network Identifier and it may additionally contain an Operator Identifier. If the Operator Identifier is not included, the DNN is supported for all the PLMNs in the plmnList of the NF Profile.  If not provided, the P-CSCF can serve any DNN.  allowedValues: N/A | type: String  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| gmFqdn | This attribute represents FQDN of the P-CSCF for the Gm interface.  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| gmIpv4Addresses | This attribute represents list of IPv4 addresses of of the P-CSCF for the Gm interface.  allowedValues: N/A | type: Ipv4Addr  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| gmIpv6Addresses | This attribute represents list of IPv6 addresses of of the P-CSCF for the Gm interface.  allowedValues: N/A | type: Ipv6Addr  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| mwFqdn | This attribute represents FQDN of the P-CSCF for the Mw interface.  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| mwIpv4Addresses | This attribute represents list of IPv4 addresses of of the P-CSCF for the Mw interface.  allowedValues: N/A | type: Ipv4Addr  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| mwIpv6Addresses | This attribute represents list of IPv6 addresses of of the P-CSCF for the Mw interface.  allowedValues: N/A | type: Ipv6Addr  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedIpv4AddressRanges | This attribute represents list of ranges of UE IPv4 addresses used on the Gm interface, served by P-CSCF.  The absence of this attribute does not mean the P-CSCF can serve any IPv4 address.  allowedValues: N/A | type: Ipv4AddressRange  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedIpv6PrefixRanges | This attribute represents list of ranges of UE IPv6 prefixes used on the Gm interface, served by P-CSCF.  The absence of this attribute does not mean the P-CSCF can serve any IPv6 prefix.  allowedValues: N/A | type: Ipv6PrefixRange  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| AMFFunction.satelliteBackhaulInfoList | This attribute defines the list of satellite backhaul information, including satellite backhaul categoty and corresponding information of (R)AN.  allowedValues: N/A | type: SatelliteBackhaulInfo  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| SatelliteBackhaulInfo.nTNGlobalRanNodeID | It specifies the unique identifier of a (R)AN node for NTN scenario. It is used to identify which (R)AN node the satellite backhaul type is applicable to.  allowedValues: N/A | type: NTNGlobalRanNodeID  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| SatelliteBackhaulInfo.satelliteBackhaulCategory | Define the type of the satellite used in the backhaul. Only a single backhaul category can be indicated.  allowedValues:  "GEO"  "MEO"  "LEO"  "OTHER\_SAT"  "DYNAMIC\_GEO"  "DYNAMIC\_MEO"  "DYNAMIC\_LEO"  "DYNAMIC\_OTHER\_SAT"  "NON\_SATELLITE" | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| SatelliteBackhaulInfo.geoSatelliteId | Unique identifier of a GEO satellite. See e.g. clause 5.43 in 3GPP TS 23.501 [2]. It shall be formatted as a fixed 5-digit string, padding with leading digits “0” to complete a 5-digit length.  Pattern: '^[0-9]{5}$'  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| NTNGlobalRanNodeID.plmnId | This attribute represents a PLMN Identity.  allowedValues: N/A | type: PLMNId  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| NTNGlobalRanNodeID.n3IwfId | This represents the identifier of the N3IWF ID. (Ref. clause 9.3.1.57 of 3GPP TS 38.413 [11])  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| NTNGlobalRanNodeID.gNbId | This represents the identifier of the gNB. (Ref. clause 8.2 of 3GPP TS 38.300 [3])  allowedValues: 0..4294967295 | type: Integer  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| NTNGlobalRanNodeID.ngeNbId | This represents the identifier of the ng-eNB ID. (Ref. clause 9.3.1.8 of 3GPP TS 38.413 [11])  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| NTNGlobalRanNodeID.wagfId | This represents the identifier of the W-AGF ID. (Ref. clause 9.3.1.162 of 3GPP TS 38.413 [11])  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| NTNGlobalRanNodeID.tngfId | This represents the identifier of the TNGF ID. (Ref. clause 9.3.1.161 of 3GPP TS 38.413 [11])  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| NTNGlobalRanNodeID.twifId | This represents the TWIF identification. (Ref. clause 9.3.1.153 of 3GPP TS 38.413 [11])  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| SMFFunction.dnaiSatelliteMappingList | It specifies the mapping relationship between satellite ID and at least one DNAI.  allowedValues: N/A | type: DnaiSatelliteMapping  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| DnaiSatelliteMapping.dnaiList | List of Data network access identifiers supported for this DNN.  allowedValues:  DNAI (Data network access identifier), see clause 5.6.7 of 3GPP TS 23.501 [2].  allowedValues: N/A | type: String  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| DnaiSatelliteMapping.geoSatelliteId | Unique identifier of a GEO satellite. See e.g. clause 5.43 in 3GPP TS 23.501 [2].  allowedValues: N/A | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| mdtUserConsentReqList | It represents a list of MDT measurement names that are subject to user consent at MDT activation, as defined in clause 4.4.1. | See mdtUserConsentReqList in clause  4.4.1. |
| mappedCellIdInfoList | It provides the list of mapping between GEO area and Mapped Cell ID.  allowedValues: Not applicable | type: MappedCellIdInfo  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| ephemerisInfos | This is the list of Ephemeris related information.  See clause 4.3.79.  allowedValues: N/A | type: Ephemeris  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| trpInfoList | This is the list of TRP (Transmission-Reception Point) related information on LMF (see TS 38.305 [107] clause 5.4.4).  allowedValues: N/A | type: TrpInfo  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| TrpInfo.gNBId | It identifies a gNB within a PLMN. The gNB ID is part of the NR Cell Identifier (NCI) of the gNB cells.  See "gNB Identifier (gNB ID)" of subclause 8.2 of TS 38.300 [3]. See "Global gNB ID" in subclause 9.3.1.6 of TS 38.413 [5].  allowedValues: 0..4294967295 | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| TrpInfo.trpMappingInfoList | This is the list of TRP mapping between satellite and TRPs.  allowedValues: N/A | type: TrpMappingInfo  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| TrpMappingInfo.satelliteId | This attribute indicates satellite Id. It shall be formatted as a fixed 5-digit string, padding with leading digits “0” to complete a 5-digit length.  allowedValues: Follow the pattern: '^[0-9]{5}$' | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| TrpMappingInfo.trpIds | This attribute indicates TRPs uniquely within an NG-RAN node (see TS 38.455 [108] clause 9.2.24). A gNB may serve several TRPs. For NTN, a TRP may be located on board the satellite.  allowedValues: 1..65535 | type: Integer  multiplicity: \*  isOrdered: false  isUnique: True  defaultValue: None  isNullable: False |
| servedHssInfoList | This attribute contains list of HssInfo attribute locally configured in the NRF or that the NRF received during NF registration. The key of the map is the nfInstanceId to which the map entry belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| served5gDdnmfInfo | This attribute contains all the 5gDdnmfInfo attribute locally configured in the NRF or that the NRF received during NF registration. The key of the map is the nfInstanceId to which the map entry belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedMfafInfoList | This attribute contains list of MfafInfo attribute locally configured in the NRF or that the NRF received during NF registration. The key of the map is the nfInstanceId to which the map entry belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedEasdfInfoList | This attribute contains list of EasdfInfo attribute locally configured in the NRF or that the NRF received during NF registration. The key of the map is the nfInstanceId to which the map entry belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedDccfInfoList | This attribute contains list of DccfInfo attribute locally configured in the NRF or that the NRF received during NF registration. The key of the map is the nfInstanceId to which the map entry belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedMbSmfInfoList | This attribute contains list of MbSmfInfo attribute locally configured in the NRF or that the NRF received during NF registration. The key of the map is the nfInstanceId to which the map entry belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedTsctsfInfoList | This attribute contains list of TsctsfInfo attribute locally configured in the NRF or that the NRF received during NF registration. The key of the map is the nfInstanceId to which the map entry belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| servedMbUpfInfoList | This attribute contains list of MbUpfInfo attribute locally configured in the NRF or that the NRF received during NF registration. The key of the map is the nfInstanceId to which the map entry belongs to.  allowedValues: N/A | type: AttributeValuePair  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| BsfInfo | This attribute represents information of a BSF NF Instance.  allowedValues: N/A | type: BsfInfo  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| BsfInfo.ipv4AddressRanges | This attribute represents the list of ranges of IPv4 addresses handled by BSF.  If not provided, the BSF can serve any IPv4 address.  allowedValues: N/A | type: Ipv4AddressRange  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| BsfInfo.dnnList | This attribute represents the list of DNNs handled by the BSF. The DNN shall contain the Network Identifier and it may additionally contain an Operator Identifier. If the Operator Identifier is not included, the DNN is supported for all the PLMNs in the plmnList of the NF Profile.  If not provided, the BSF can serve any DNN.  allowedValues: N/A | type: String  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| BsfInfo.ipDomainList | This attribute represents the list of IPv4 address domains, as described in clause 6.2 of 3GPP TS 29.513 [28], handled by the BSF.  If not provided, the BSF can serve any IP domain.  allowedValues: N/A | type: TAIRange  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| BsfInfo.ipv6PrefixRanges | This attribute represents the list of ranges of IPv6 prefixes handled by the BSF.  If not provided, the BSF can serve any IPv6 prefix.  allowedValues: N/A | type: Ipv6PrefixRange  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| BsfInfo.rxDiamHost | This attribute represents the Diameter host of the Rx interface for the BSF.  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| BsfInfo.rxDiamRealm | This attribute represents the Diameter realm of the Rx interface for the BSF. See TS 29.571 [61]. String contains a Diameter Identity (FQDN).  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| BsfInfo.groupId | This attribute represents the identity of the BSF group that is served by the BSF instance.  If not provided, the BSF instance does not pertain to any BSF group.  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| BsfInfo.supiRanges | This attribute represents list of ranges of SUPI's served by the BSF instance  allowedValues: N/A | type: SupiRange  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| BsfInfo.gpsiRanges | This attribute represents list of ranges of GPSI's served by the BSF instance  allowedValues: N/A | type: IdentityRange  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| predefinedPccRuleSetRefs | This holds a list of DN of PredefinedPccRuleSet instance.  allowedValues: N/A | type: DN  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| nfStatus | It represents status of the NF Instance.  allowedValues: refer to TS 29.510[23] clause 6.1.6.3.7 | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| plmnList | It represents list of PLMN(s) of the Network Function.  It shall be present if this information is available for the NF.  allowedValues: N/A | type: PlmnId  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| sNssais | It indicates S-NSSAIs of the Network Function.  allowedValues: N/A | type: S-NSSAI  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| nfServices | It indicates a list of NF Service Instances.  allowedValues: N/A | type: NFService  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| serviceInstanceId | It indicates the unique ID of the service instance within a given NF Instance.  allowedValues: N/A | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| serviceName | It indicates name of the service instance.  allowedValues:refer to TS 29.510[23] clause 6.1.6.3.11 | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| NFService.versions | This attribute identifies the API versions (supported by the NF Service and if available, the corresponding retirement date of the NF Service.  allowedValues: N/A | type: String  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| schema | It indicates URI scheme (e.g. "http", "https").  allowedValues: “http”, “https” | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| ipEndPoints | It indicates IP address(es) and port information of the Network Function (including IPv4 and/or IPv6 address) where the service is listening for incoming service requests.  allowedValues: N/A | type: IpEndPoint  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| apiPrefix | It indicates an optional path segment(s) used to construct the {apiRoot} variable of the different API URIs  allowedValues: N/A | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| NOTE 1: If none of these parameters are provided, the AUSF can serve any SUPI managed by the PLMN of the AUSF instance. If "supiRanges" attribute is absent, and "groupId" is present, the SUPIs served by this AUSF instance is determined by the NRF (see TS 23.501 [2], clause 6.2.6.2).  NOTE 2: The combination of SUCI informations, e.g. Routing Indicator and Home Network Public Key Id, can be used as criteria for AUSF discovery. This may only be used by the HPLMN in roaming scenarios in this release of the specification, i.e. an AMF in a visited network does not use the Home Network Public Key ID for AUSF selection.  NOTE 3: If the suciInfos attribute is present and contains the routingInds sub-attribute, then the routingIndicators attribute shall also be present. | | |

***Next change***

### 6.4.1 Attribute properties

| Attribute Name | Documentation and Allowed Values | Properties |
| --- | --- | --- |
| ServiceProfile.availability | This parameter specifies the communication service availability requirement, expressed as a percentage. This parameter is applicable for an end-to-end communication service provided by a network slice. The communication service availability is defined in clause 3.1 of TS 22.261 [28]. | type: Real  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| serviceProfileId | A unique identifier of property of network slice related requirement should be supported by the network slice. | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| sliceProfileId | A unique identifier of the property of network slice subnet related requirement should be supported by the network slice subnet. | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| operationalState | It indicates the operational state of the network slice or the network slice subnet. It describes whether or not the resource is physically installed and working.  allowedValues: "ENABLED", "DISABLED".  The meaning of these values is as defined in 3GPP TS 28.625 [17] and ITU-T X.731 [18]. | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  allowedValues: N/A  isNullable: False |
| administrativeState | It indicates the administrative state of the network slice or the network slice subnet. It describes the permission to use or prohibition against using the managed object instance, imposed through the OAM services.  allowedValues: “LOCKED”, “UNLOCKED”, SHUTTINGDOWN”  The meaning of these values is as defined in 3GPP TS 28.625 [17] and ITU-T X.731 [18]. | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: LOCKED  isNullable: False |
| nsInfo | This attribute contains the NsInfo of the NS instance corresponding to the network slice subnet instance. The NsInfo is described in clause 8.3.3.2.2 of ETSI GS NFV-IFA 013 [29]. | type: NsInfo  multiplicity: 0..1  isOrdered: N/A  isUnique: True  defaultValue: None  isNullable: False |
| nsInstanceId | This attribute specifies the identifier of NS instance corresponding to the network slice subnet instance.  See clause 8.3.3.2.2 of ETSI GS NFV-IFA 013 [29]. | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| nsName | This attribute specifies the name of NS instance corresponding to the network slice subnet instance.  See clause 8.3.3.2.2 of ETSI GS NFV-IFA 013 [29]. | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| description | This attribute specifies the description of NS instance corresponding to the network slice subnet instance.  See clause 8.3.3.2.2 of ETSI GS NFV-IFA 013 [29]. | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| category | This attribute specifies the category of a service requirement/attribute of GST (see GSMA NG.116 [50]).  allowedValues: CHARACTER, SCALABILITY | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| tagging | This attribute specifies the tagging of a service requirement/attribute of GST in character category (see GSMA NG.116 [50]).  allowedValues: PERFORMANCE, FUNCTION, OPERATION | type: ENUM  multiplicity: 1…3  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| exposure | This attribute specifies exposure mode of a service requirement/attribute of GST (see GSMA NG.116 [50]).  allowedValues: API, KPI | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| maxNumberofUEs | An attribute specifies the maximum number of UEs may simultaneously access the network slice or network slice subnet instance. | type: MaxNumberofUEs  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| MaxNumberofUE.3GPPNoOfUEs | An attribute specifies the maximum number of UEs may simultaneously access the network slice or network slice subnet instance on 3GPP access. | Type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| MaxNumberofUE.non3GPPNoOfUEs | An attribute specifies the maximum number of UEs may simultaneously access the network slice or network slice subnet instance on non-3GPP access. | Type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| coverageAreaTAList | An attribute specifies a list of Tracking Areas for the network slice. TAI uniquely identifies a Tracking Area. TAI is defined in clause 9.3.3.11 of TS 38.413 [5].  allowedValues: N/A | type: Tai  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| dLLatency | An attribute specifies the required DL packet transmission latency (millisecond) through the RAN, CN, and TN part of 5G network and is used to evaluate utilization performance of the end-to-end network slice. See clause 6.3.1 of 28.554 [27]. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| uLLatency | An attribute specifies the required UL packet transmission latency (millisecond) through the RAN, CN, and TN part of 5G network and is used to evaluate utilization performance of the end-to-end network slice. See clause 6.3.1 of 28.554 [27]. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| TopSliceSubnetProfile.dLLatency | An attribute specifies the required DL packet transmission latency (millisecond) through all domains of the network slice and is used to evaluate utilization performance of the end-to-end network slice. See clause 6.3.1 of 28.554 [27]. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| TopSliceSubnetProfile.uLLatency | An attribute specifies the required UL packet transmission latency (millisecond) through all domains of the network slice and is used to evaluate utilization performance of the end-to-end network slice. See clause 6.3.1 of 28.554 [27]. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| CNSliceSubnetProfile.dLLatency | An attribute specifies the required DL packet transmission latency (millisecond) through CN domain of the network slice and is used to evaluate the delay in CN domain, e.g. time between received DL packet on N6 interface of UPF and successfully sent out the packet on N3 interface. | type: Real  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| CNSliceSubnetProfile.uLLatency | An attribute specifies the required UL packet transmission latency (millisecond) through CN domain of the network slice and is used to evaluate the delay in CN domain, e.g. time between received UL packet on N3 interface of UPF and successfully sent out the packet on N6 interface. | type: Real  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| RANSliceSubnetProfile.dLLatency | An attribute specifies the required DL packet transmission latency (millisecond) in RAN including the air interface of the network slice and is used to evaluate the delay between NR-RAN and UE, e.g. time between received DL packet from UPF and the packet successfully received by UE. See clause 5.1.1.1.6 in TS 28.552 [69]. | type: Real  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| RANSliceSubnetProfile.uLLatency | An attribute specifies the required UL packet transmission latency (millisecond) in RAN including the air interface of the network slice and is used to evaluate the delay between UE and NG-RAN, e.g. time between the UL packet transmitted by UE and the packet transmitted by gNB to UPF. See clause 5.1.1.1.7 in TS 28.552 [69]. | type: Real  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| uEMobilityLevel | An attribute specifies the mobility level of UE accessing the network slice. See 6.2.1 of TS 22.261 [28].  allowedValues: STATIONARY, NOMADIC, RESTRICTED\_MOBILITY, FULL\_MOBILITY. | type: ENUM  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| networkSliceSharingIndicator | The attribute specifies whether a service, defined by the ServiceProfile, can share a NetworkSlice instance with other services or not. If “non-shared” the service needs a dedicated NetworkSlice instance. If “shared” the service may share a NetworkSlice instance with other service(s).  allowedValues: SHARED, NON\_SHARED. | type: ENUM  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| serviceProfile.pLMNInfoList | It defines which PLMN and S-NSSAI combinations that are assigned for the service to satisfy service requirements represented by the ServiceProfile in case of network slicing feature is supported.  allowedValues: Not applicable. | type: PLMNInfo  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| sliceProfile.pLMNInfoList | It defines which PLMN and S-NSSAI combinations that are served by the SliceProfile in case of network slicing feature is supported.  allowedValues: Not applicable. | type: PLMNInfo  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| sliceProfile.resourceSharingLevel | An attribute specifies whether the resources to be allocated to the network slice subnet may be shared with another network slice subnet(s).  allowedValues: SHARED, NON\_SHARED. | type: ENUM  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| serviceProfileList | An attribute specifies a list of ServiceProfile (see clause 6.3.3) supported by the network slice | type: ServiceProfile  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| sliceProfileList | An attribute specifies a list of SliceProfile (see clause 6.3.4) supported by the network slice subnet.  All members of the list, instances of SliceProfile, shall contain the same datatype representing slice profile requirements: TopSliceSubnetProfile, RANSliceSubnetProfile or CNSliceSubnetProfile. E.g. the sliceProfileList may contain only instances of sliceProfile containing RANSliceSubnetProfile datatype; the sliceProfileList may not contain instances of sliceProfile containing RANSliceSubnetProfile and CNSliceSubnetProfile datatypes  Members of the list may contain TopSliceSubnetProfile datatype only when this attribute (sliceProfileList) belongs to a NetworkSliceSubnet that is directly referenced by a NetworkSlice | type: SliceProfile  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| sST | This attribute specifies the slice/service type in a ServiceProfile to be supported by a network slice.  See standardised SST values in clause 5.15.2 of TS 23.501 [2]. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| delayTolerance | An attribute specifies the properties of service delivery flexibility, especially for the vertical services that are not chasing a high system performance. See clause 4.3 of TS 22.104 [51]. | type: DelayTolerance  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| DelayTolerance.support | An attribute specifies whether or not the network slice supports service delivery flexibility, especially for the vertical services that are not chasing a high system performance.  allowedValues:  "NOT\_SUPPORTED", "SUPPORTED". | type: <<enumeration>>  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| dLDeterministicComm | An attribute specifies the properties of the deterministic communication in downlink for periodic user traffic, see clause 4.3 of TS 22.104 [51]. | type: DeterministicComm  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| uLDeterministicComm | An attribute specifies the properties of the deterministic communication in uplink for periodic user traffic, see clause 4.3 of TS 22.104 [51]. | type: DeterministicComm  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| DeterministicComm.availability | An attribute specifies whether or not the network slice supports deterministic communication for period user traffic.  allowedValues:  "NOT\_SUPPORTED", "SUPPORTED". | type: <<enumeration>>  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| DeterministicComm.periodicityList | An attribute specifies a list of periodicities supported by the network slice for deterministic communication. Each instance of periodicity is expressed in seconds, refer to NG.116 [50]. | type: Integer  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| dLThptPerSlice | This attribute defines achievable data rate of the network slice in downlink that is available ubiquitously across the coverage area of the slice, refer NG.116 [50]. | type: XLThpt  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| dLThptPerSliceSubnet | This attribute defines required data rate of the network slice subnet in downlink that should be available ubiquitously across the coverage area of the slice. | type: XLThpt  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| dLThptPerUE | This attribute defines data rate supported by the network slice per UE, refer NG.116 [50]. | type: XLThpt  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| guaThpt | This attribute describes the guaranteed data rate. | type: Real  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| maxThpt | This attribute describes the maximum data rate. | type: Real  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| uLThptPerSlice | This attribute defines achievable data rate of the network slice in uplink that is available ubiquitously across the coverage area of the slice, refer NG.116 [50]. | type: XLThpt  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| uLThptPerUE | This attribute defines data rate supported by the network slice per UE, refer NG.116 [50]. | type: XLThpt  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| uLThptPerSliceSubnet | This attribute defines required data rate of the network slice subnet in uplink that should be available ubiquitously across the coverage area of the slice. | type: XLThpt  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| dLMaxPktSize | This parameter specifies the maximum packet size supported by the network slice or the network slice subnet, in downlink refer NG.116 [50]. | type: MaxPktSize  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| uLMaxPktSize | This parameter specifies the maximum packet size supported by the network slice or the network slice subnet in uplink, refer NG.116 [50]. | type: MaxPktSize  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| MaxPktSize.maxsize | This parameter specifies the maximum packet size supported by the network slice, refer NG.116 [50]. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| maxNumberofPDUSessions | This parameter defines the maximum number of concurrent PDU sessions supported by the network slice on 3GPP access type, refer NG.116 [50]. | type: MaxNumberofPDUSessions  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| MaxNumberofPDUSessions.3GPPNoOfPDUSessions | This parameter defines the maximum number of concurrent PDU sessions supported by the network slice, refer NG.116 [50]. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| MaxNumberofPDUSessions.non3GPPNoOfPDUSessions | This parameter defines the maximum number of concurrent PDU sessions supported by the network slice on non 3GPP access type, refer NG.116 [50]. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| ServiceProfile.kPIMonitoring | An attribute specifies the name list of KQIs and KPIs, related to the network slice available for performance monitoring. | type: KPIMonitoring  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| KPIMonitoring.kPIList | An attribute specifies the name list of KQIs and KPIs available for performance monitoring. | type: String  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| nBIoT | An attribute specifies whether NB-IoT is supported in the RAN in the network slice, see NG.116 [50]. | type: NBIoT  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| NBIoT.support | An attribute specifies whether NB-IoT is supported in the RAN in the network slice, see NG.116 [50].  allowedValues:  "NOT\_SUPPORTED", "SUPPORTED". | type: <<enumeration>>  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| synchronicity | An attribute specifies whether synchronicity of communication devices is supported, Two cases are most important in this context, see clause 3.4.29 of NG.116 [50]:  - Synchronicity between a base station and a mobile device and  - Synchronicity between mobile devices. | type: Synchronicity  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| Synchronicity.availability | An attribute specifies whether synchronicity of communication devices is supported, see NG.116 [50].  allowedValues:  "NOT\_SUPPORTED", "BETWEEN\_BS\_AND\_UE", "BETWEEN\_BS\_AND\_UE\_AND\_UE\_AND\_UE". | type: <<enumeration>>  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| Synchronicity.accuracy | An attribute specifies the accuracy of the synchronicity, see NG.116 [50]. | type: Real  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| RANSliceSubnetProfile.synchronicity | An attribute specifies whether synchronicity of communication devices is supported in the RAN domain, Two cases are most important in this context, see clause 3.4.29 of NG.116 [50]:  - Synchronicity between a base station and a mobile device and  - Synchronicity between mobile devices. | type: Synchronicity  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| userMgmtOpen | An attribute specifies whether or not the network slice supports the capability for the NSC to manage their users or groups of users’ network services and corresponding requirements. | type: UserMgmtOpen  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| UserMgmtOpen.support | An attribute specifies whether or not the network slice supports the capability for the NSC to manage their users or groups of users’ network services and corresponding requirements.  allowedValues:  "NOT\_SUPPORTED", "SUPPORTED". | type: <<enumeration>>  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| v2XCommModels | An attribute specifies whether or not the V2X communication mode is supported by the network slice. | type: V2XCommMode  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| V2XCommMode.v2XMode | An attribute specifies whether or not the V2X communication mode is supported by the network slice.  allowedValues:  "NOT\_SUPPORTED", "SUPPORTED\_BY\_NR". | type: <<enumeration>>  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| coverageArea | An attribute specifies the coverage area of the network slice, i.e. the geographic region where a 3GPP communication service is accessible, see Table 7.1-1 of TS 22.261 [28]) and NG.116 [50]. | type: GeoArea  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| termDensity | An attribute specifies the overall user density over the coverage area of the network slice. See Table 7.1-1 of TS 22.261 [28]). | type: TermDensity  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| TermDensity.density | An attribute specifies the overall user density over the coverage area of the network slice. See Table 7.1-1 of TS 22.261 [28]). | type: Integer  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| positioning | An attribute specifies whether the network slice provides geo-localization methods or supporting methods, see clause 3.4.20 of NG.116 [50]. | type: Positioning  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| RANSliceSubnetProfile.positioning | An attribute specifies whether the RAN domain of the network slice provides geo-localization methods or supporting methods, see clause 3.4.20 of NG.116 [50]. | type: PositioningRANSubnet  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| PositioningRANSubnet.availability | An attribute specifies if this attribute is provided by the RAN domain of the network slice and contains a list of positioning methods provided by the RAN domain. If the list is empty this attribute is not available in the RAN domain and the other parameters might be ignored, see NG.116 [50]. Comma separated multiple values are allowed:  CIDE\_CID, OTDOA, RF\_FINGERPRINTING, AECID, HYBRID\_POSITIONING, NET\_RTK. | type: ENUM  multiplicity: 1..6  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| PositioningRANSubnet.predictionFrequency | An attribute specifies how often location information is provided. This parameter simply defines how often the customer is allowed to request location information. This is not related to the time it takes to determine the location, which is a characteristic of the positioning method, see NG.116 [50].  allowedValues:  "PERSEC", "PERMIN", "PERHOUR". | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| PositioningRANSubnet.accuracy | An attribute specifies the accuracy of the location information. Accuracy depends on the respective positioning solution applied in the RAN domain of the network slice, measurement unit is meter, see NG.116 [50]. | type: Real  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| activityFactor | An attribute specifies the percentage value of the amount of simultaneous active UEs to the total number of UEs where active means the UEs are exchanging data with the network. See Table 7.1-1 of TS 22.261 [28]). | type: Real  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| uESpeed | An attribute specifies the maximum speed (in km/hour) supported by the network slice or network slice subnet at which a defined QoS can be achieved. See Table 7.1-1 of TS 22.261 [28]). | type: Integer  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| ServiceProfile.dLPktDelayVariation | An attribute specifies the maximum allowed deviation (millisecond) of the difference in DL packet spacing at the receiver compared to the sender for a pair of packets through the RAN, CN and TN part of an end-to-end network slice.  How to measure inter-packet delay variation is documented by IETF in RFC 3393 [102] as measuring the IP packet delay variation and its applicability to use it as metric is documented in Section 4.1 of RFC 5481 [103]. The deviation is also defined in Annex C.4.4 of TS 22.104 [51] | type: Real  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| ServiceProfile.uLPktDelayVariation | An attribute specifies the maximum allowed deviation (millisecond) of the difference in UL packet spacing at the receiver compared to the sender for a pair of packets through the RAN, CN and TN part of an end-to-end network slice.  How to measure inter-packet delay variation is documented by IETF in RFC 3393 [102] as measuring the IP packet delay variation and its applicability to use it as metric is documented in Section 4.1 of RFC 5481 [103]. The deviation is also defined in Annex C.4.4 of TS 22.104 [51] | type: Real  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| TopSliceSubnetProfile.dLPktDelayVariation | An attribute specifies the maximum allowed deviation (millisecond) of the difference in DL packet spacing at the receiver compared to the sender for a pair of packets through the RAN, CN and TN part of an end-to-end network slice.  How to measure inter-packet delay variation is documented by IETF in RFC 3393 [102] as measuring the IP packet delay variation and its applicability to use it as metric is documented in Section 4.1 of RFC 5481 [103]. The deviation is also defined in Annex C.4.4 of TS 22.104 [51] | type: Real  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| TopSliceSubnetProfile.uLPktDelayVariation | An attribute specifies the maximum allowed deviation (millisecond) of the difference in UL packet spacing at the receiver compared to the sender for a pair of packets through the RAN, CN and TN part of an end-to-end network slice.  How to measure inter-packet delay variation is documented by IETF in RFC 3393 [102] as measuring the IP packet delay variation and its applicability to use it as metric is documented in Section 4.1 of RFC 5481 [103]. The deviation is also defined in Annex C.4.4 of TS 22.104 [51] | type: Real  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| CNSliceSubnetProfile.dLPktDelayVariation | An attribute specifies the maximum allowed deviation (millisecond) of the difference in DL packet spacing at the receiver compared to the sender for a pair of packets through CN domain of the network slice.  How to measure inter-packet delay variation is documented by IETF in RFC 3393 [102] as measuring the IP packet delay variation and its applicability to use it as metric is documented in Section 4.1 of RFC 5481 [103]. The deviation is also defined in Annex C.4.4 of TS 22.104 [51] | type: Real  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| CNSliceSubnetProfile. uLPktDelayVariation | An attribute specifies the maximum allowed deviation (millisecond) of the difference in UL packet spacing at the receiver compared to the sender for a pair of packets through CN domain of the network slice.  How to measure inter-packet delay variation is documented by IETF in RFC 3393 [102] as measuring the IP packet delay variation and its applicability to use it as metric is documented in Section 4.1 of RFC 5481 [103]. The deviation is also defined in Annex C.4.4 of TS 22.104 [51] | type: Real  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| RANSliceSubnetProfile.dLPktDelayVariation | An attribute specifies the maximum allowed deviation (millisecond) of the difference in DL packet spacing at the receiver compared to the sender for a pair of packets through RAN domainof the network slice.  How to measure inter-packet delay variation is documented by IETF in RFC 3393 [102] as measuring the IP packet delay variation and its applicability to use it as metric is documented in Section 4.1 of RFC 5481 [103]. The deviation is also defined in Annex C.4.4 of TS 22.104 [51] | type: Real  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| RANSliceSubnetProfile.uLPktDelayVariation | An attribute specifies the maximum allowed deviation (millisecond) of the difference in UL packet spacing at the receiver compared to the sender for a pair of packets through RAN domainof the network slice.  How to measure inter-packet delay variation is documented by IETF in RFC 3393 [102] as measuring the IP packet delay variation and its applicability to use it as metric is documented in Section 4.1 of RFC 5481 [103]. The deviation is also defined in Annex C.4.4 of TS 22.104 [51] | type: Real  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| survivalTime | An attribute specifies the time (millisecond) that an application consuming a communication service may continue without an anticipated message. See clause 5 of TS 22.104 [51]). | type: Real  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| dLReliability | An attribute specifies in the context of network layer DL packet transmissions, percentage value of the amount of sent network layer packets successfully delivered to a given system entity within the time constraint required by the targeted service, divided by the total number of sent network layer packets, see TS 22.261. | type: Real  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| uLReliability | An attribute specifies in the context of network layer UL packet transmissions, percentage value of the amount of sent network layer packets successfully delivered to a given system entity within the time constraint required by the targeted service, divided by the total number of sent network layer packets, see TS 22.261. | type: Real  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| NetworkSlice.networkSliceSubnetRef | This holds a DN of NetworkSliceSubnet relating to the NetworkSlice instance. | type: DN  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| NetworkSliceSubnet.networkSliceSubnetRef | This holds a list of DN of constituent NetworkSliceSubnet supporting NetworkSliceSubnet instance | type: DN  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| managedFunctionRef | This holds a list of DN of ManagedFunction instances supporting the NetworkSliceSubnet instance. | type: DN  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| ipAddress | This parameter specifies the IP address assigned to a logical transport interface/endpoint which is part of a RAN or CN SubNetwork.  It can be an IPv4 address (See RFC 791 [37]) or an IPv6 address (See RFC 2373 [38]).  See note 1 | type: IpAddress  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| localLogicalInterfaceInfo | This parameter specifies the information of a local logical transport interface. | type: LogicalInterfaceInfo  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| logicalInterfaceType | This parameter specifies the type of a logical transport interface. It could be VLAN, MPLS or SEGMENT.  allowedValues: VLAN,MPLS, SEGMENT | type:ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| logicalInterfaceId | This parameter specifies the identify of a logical transport interface which is part of a RAN or CN SubNetwork. It could be VLAN ID (See IEEE 802.1Q [39]), MPLS Tag or Segment ID.  In case logical transport interface is VLAN, it is VLAN Id (See IEEE 802.1Q [39]).  In case logical transport interface is MPLS, it is MPLS Tag.  In case logical transport interface is Segment, it is Segment ID. | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| externalEndPointRefList | This parameter is used to identify a list of connection point info(s). | Type: ConnectionPointInfo  multiplicity: \*  isOrdered: False  isUnique: False  defaultValue: None  isNullable: False |
| connectionPointId | This parameter specifies the identifier of a TN object. | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| connectionPointIdType | This parameter specifies the type of the connection point identifier.  allowedValues: VLAN, MPLS, SEGMENT, IPV4, IPV6, ATTACHMENT\_CIRCUIT | type:ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| LogicalInterfaceInfo.systemName | This parameter specifies the identifier for a system. | Type: String  Multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| LogicalInterfaceInfo.portName | This parameter specifies the identifier for a port. | Type: String  Multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| LogicalInterfaceInfo.routingProtocol | This parameter specifies the Routing protocol.  allowedValues: RIP, IGMP, OSPF, EGP, EIGRP, BGP, IS-IS, STATIC | type:ENUM  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| qosProfile | This parameter specifies the QoS Profile for a logical transport interface. A QoS profile includes a set of parameters which are locally provisioned on both sides of a logical transport interface.  An example of the parameter value could be “DSCP” (See RFC 8436 [74]). | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: True  defaultValue: None  isNullable: False |
| maxDLDataVolume | An attribute specifies the maximum DL PDCP data volume supported by the network slice instance (performance measurement definition see in TS 28.552 [69]). The unit is MByte/day. | type: Real  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| maxULDataVolume | An attribute specifies the maximum UL PDCP data volume supported by the network slice instance (performance measurement definition see in TS 28.552 [69]). The unit is MByte/day. | type: Real  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| radioSpectrum | This attribute represents the radio spectrum in which the network slice should be supported (see clause 3.4.21 of GSMA NG.116 [50]). | type: RadioSpectrum  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| nROperatingBands | This attribute represents which 5G NR frequency bands can be used to access the network slice. 5G NR operating bands are defined in 3GPP TS 38.101-1 [42]. | type: String  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| epApplicationRef | This parameter specifies a list of application level EPs (i.e. EP\_N3 or EP\_NgU or EP\_F1U) associated with the logical transport interface. | type: DN  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| epTransportRef | This parameter specifies a list of transport level EPs associated with the application level EP (i.e. EP\_N3 or EP\_NgU or EP\_F1U) or network slice subnet. | type: DN  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| sliceSimultaneousUse | This attribute describes whether a network slice can be simultaneously used by a device together with other network slices and if so, with which other classes of network slices.  allowedValues: “0”, “1”, “2”, “3”, “4”.  “0”: Can be used with any network slice  “1”: Can be used with network slices with same SST value  “2”: Can be used with any network slice with same SD value  “3”: Cannot be used with another network slice  “4”: Cannot be used by a UE in a specific location | type: integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| energyEfficiency | An attribute which describes the energy efficiency of a network slice, i.e. the ratio between the performance of a network slice and its energy consumption (EC) when assessed during the same time frame, see clause 3.4.7 of NG.116 [50]. | type: EnergyEfficiency  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| EnergyEfficiency.performance | Depending on the sST value, EnergyEfficiency.performance will be  - eMBBEEPerfReq  or  - uRLLCEEPerfReq  or  - mIoTEEPerfReq  allowedValues:  - eMBBEEPerfReq identifies the requirement in terms of energy efficiency, i.e. the performance per consumed Joule in type Real, where performance can take one of the following forms (type: ENUM):  - number of bits (Integer) (see TS 28.554 [27] clause 6.7.2.2).  - number of bits (Integer) for RAN-based network slice (see TS 28.554 [27] clause 6.7.2.2a).  - uRLLCEEPerfReq identifies the requirement in terms of energy efficiency, i.e. the performance per consumed Joule in type Real, where performance can take one of the following forms (type: ENUM):  - inverse of the latency in 0.1ms (Real) (see TS 28.554 [27] clause 6.7.2.3.2).  - number of bits multiplied by the inverse of the latency in 0.1ms (Real) (see TS 28.554 [27] clause 6.7.2.3.3).  - mIoTEEPerfReq identifies the requirement in terms of energy efficiency, i.e. the performance per consumed Joule in type Real, where performance can take one of the following forms (type: ENUM):  - maximum number of registered subscribers (Integer) (see TS 28.554 [27] clause 6.7.2.4.1),  - mean number of active UEs (Integer) (see TS 28.554 [27] clause 6.7.2.4.2).  See NOTE 3. | type: ENUM  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| TopSliceSubnetProfile.energyEfficiency | An attribute which describes the energy efficiency through all domains of the network slice, i.e. the ratio between the performance and the energy consumption (EC) when assessed during the same time frame, see clause 3.4.7 of NG.116 [50]. | type: EnergyEfficiency  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| CNSliceSubnetProfile.energyEfficiency | An attribute which describes the energy efficiency through CN domain of the network slice, i.e. the ratio between the performance and the energy consumption (EC) when assessed during the same time frame, see clause 3.4.7 of NG.116 [50]. | type: Real  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| RANSliceSubnetProfile.energyEfficiency | An attribute which describes the energy efficiency through RAN domain of the network slice, i.e. the ratio between the performance and the energy consumption (EC) when assessed during the same time frame, see clause 3.4.7 of NG.116 [50]. | type: Real  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| nssaaSupport | An attribute specifies whether for the Network Slice, devices need to be also authenticated and authorized by a AAA server using additional credentials different than the ones used for  the primary authentication, see clause 3.4.37 of NG.116 [50].  allowedValues: N/A | type: NSSAASupport  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| nssaaSupport.support | An attribute specifies whether or not the Network Slice, devices need to be also authenticated and authorized by a AAA server using additional credentials different than the ones used for  the primary authentication.  allowedValues:  "NOT\_SUPPORTED", "SUPPORTED". | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| ServiceProfile.n6Protection | An attribute which includes required security functions and corresponding rules of each function for network slice N6 interface protection.  allowedValues: N/A | type: N6Protection  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| CNSliceSubnetProfile.n6Protection | An attribute which includes required security functions and corresponding rules of each function for network slice N6 interface protection.  allowedValues: N/A | type: N6Protection  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| secFuncList | An attribute which holds the list of security control functions/features required by the Network Slice or Network Slice Subnet consumer.  allowedValues: N/A | type: SecFunc  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| secFunId | An attribute which identifies a security function.  allowedValues: N/A | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| secFunType | An attribute which describes the type of the security function. E.g. Firewall, NAT, antimalware, parental control, DDoS protection function, etc.  allowedValues: N/A | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| secRules | An attribute which could be configured on each function. If it's absent, the default rules could be applied.  allowedValues: N/A | type: String  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| networkSliceSubnetType | An attribute indicating type of network slice subnet, including:  - Top network slice subnet  - RAN network slice subnet  - CN network slice subnet  allowedValued:  TOP\_SLICESUBNET,RAN\_SLICESUBNET,CN\_SLICESUBNET | type:ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| priorityLabel | An attribute specifies a label that consumer would assign a value on an instance of network slice subnet. The management system takes the value of this attribute into account. The effect of this attribute value to the subject managed entity is not standardized  allowedValues: N/A | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| NetworkSliceSubnetProviderCapabilities.dLlatency | This attribute specifies the achievable packet transmission latency in downlink (millisecond) through the network slice subnet. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| NetworkSliceSubnetProviderCapabilities.uLlatency | This attribute specifies the achievable packet transmission latency in uplink (millisecond) through the network slice subnet. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| NetworkSliceSubnetProviderCapabilities.dLThptPerSliceSubnet | This attribute defines achievable data rate of the network slice subnet in downlink that is available ubiquitously across the coverage area of the slice. | type: XLThpt  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| NetworkSliceSubnetProviderCapabilities.uLThptPerSliceSubnet | This attribute defines achievable data rate of the network slice subnet in uplink that is available ubiquitously across the coverage area of the slice. | type: XLThpt  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| NetworkSliceSubnetProviderCapabilities.coverageAreaTAList | An attribute specifies a list of Tracking Areas that a network slice subnet can serve. TAI uniquely identifies a Tracking Area. TAI is defined in clause 9.3.3.11 of TS 38.413 [5].  allowedValues: N/A | type: Tai  multiplicity: 1..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| processMonitor | An attribute describes the process monitoring information of the feasibility check and reservation job. See corresponding processMonitor definition in TS 28.622[30]. | type: ProcessMonitor  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| feasibilityResult | An attribute which specifies the feasibility check result for the feasibility check and reservation job. This attribute is configured by MnS producer and can be read by MnS consumer. The feasibilityResult is configured once the "status" is "FINISHED"  allowedValues:  FEASIBLE: which means the specified network slicing related requirements (i.e. ServiceProfile, SliceProfile) can be satisfied by the MnS producer.  INFEASIBLE: which means the specified network slicing related requirements (i.e. ServiceProfile, SliceProfile) cannot be satisfied by the MnS producer. | type: ENUM  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| inFeasibleReason | An attribute that specifies the additional reason information if the feasibility check result is infeasible. This attribute can be absent if the feasibility check result is feasibile.  allowedValues: the detailed content (ENUM Value) for the inFeasibleReason is not defined in the present document. | type: ENUM  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| resourceReservation | An attribute represents MnS consumer's requirements for resource reservation.  allowedValues:  TRUE: MnS producer need to reserve corresponding resources  FALSE: no guarantee for the corresponding resources. | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: FALSE  isNullable: False |
| recommendationRequest | An attribute represents MnS consumer's request for recommended network slice related requirements  allowedValues:  TRUE: MnS producer need to derive and provide the recommended network slicing related requirements  FALSE: no guarantee for derive and provide the recommended network slicing related requirements. | type: Boolean  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: FALSE  isNullable: False |
| requestedReservationExpiration | An attribute which specifies MnS consumer's requirememts for the validity period of the resource reservation. The value of requestedReservationExpiration is specified by MnS consumer. | type: TimeWindow  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| reservationExpiration | An attribute which specifies the actual validity period of the resource reservation. After the period expires, no guarantees are given for the resources associated to the corresponding network slicing related requirements (i.e. ServiceProfile, SliceProfile). which is specified by MnS producer based on requested reservation expiration from MnS consumer and its own reservation capabilities. In case MnS produer have the enpugh capability to satisfy MnS consumer's reservation requirememts, the value of reservationExpiration is same as requestedReservationExpiration. | type: TimeWindow  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| resourceReservationStatus | An attribute which specifies the resource reservation result for the feasibility check and reservation job. This attribute is configured by MnS producer and can be read by MnS consumer.  allowedValues:  RESERVED: which means the resources for the specified network slicing related requirements (i.e. ServiceProfile, SliceProfile) is reserved.  UNRESERVED: which means the resources for the specified network slicing related requirements (i.e. ServiceProfile, SliceProfile) is not reserved.  USED: which means the reserved resource for the specified network slicing related requirements is used. | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| recommendedRequirements | An attribute which specifies the recommended network slicing related requirements (i.e. ServiceProfile and SliceProfile information) which can be supported by the MnS producer. This information is provided when the feasibility check result is infeasible. This information can be used by MnS consumer to adjust the network slicing related requirements. | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| reservationFailureReason | An attribute that specifies the additional reason information if the reservation is failed. This attribute can be absent if the reservation is successful.  allowedValues: the detailed content (ENUM Value) for the reservationFailureReason is not defined in the present document. | type: ENUM  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| FeasibilityCheckAndReservationJob.serviceProfile | An attribute specifies the network slice related requirements for the feasibility check and resource reservation job | type: ServiceProfile  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| FeasibilityCheckAndReservationJob.sliceProfile | An attribute specifies the network slice subnet related requirements for the feasibility check and resource reservation job | type: SliceProfile  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| feasibilityTimeWindow | An attribute represents MnS consumer's request for checking whether the network slicing related requirements (i.e. ServiceProfile and SliceProfile information) can be satisfied at a specified time window.  If this attribute specified by MnS consumer, MnS producer determine whether the network slicing related requirements can be satisfied at the specified time window and reserve corresponding resources at the specified time window if resourceReservation is “TRUE”. | type: TimeWindow  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| NetworkSlice.networkSliceControllerRef | This holds a list of DN of NetworkSliceController supported by the NetworkSlice MOI. | type: DN  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| NetworkSliceSubnet.networkSliceSubnetControllerRef | This holds a list of DN of NetworkSliceSubnetController supported by the NetworkSliceSubnet MOI. | type: DN  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| NetworkSliceController.inputServiceProfile | This attribute specifies the input network slice related requirements provided by the MnS consumer. | type: ServiceProfile  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| NetworkSliceController.serviceProfileId | This attribute specifies the service profile identifier provided by the MnS producer for the network slice related requirements specified in inputServiceProfile attribute or as specified as part of AllocateNsi operation (defined in TS 28.531 [26]). | type: String  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| NetworkSliceController.processMonitor | This attribute describes the process monitoring information of the fulfilment of the network slice life cycle management. | type: ProcessMonitor  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| NetworkSliceController.networkSliceRef | This attribute specifies the DN of the NetworkSlice MOI, that the MnS producer has selected to fulfil the network slice related requirements specified in inputServiceProfile attribute or as specified as part of AllocateNsi operation (defined in TS 28.531 [26]). | type: DN  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| NetworkSliceSubnetController. inputSliceProfile | This attribute specifies the network slice subnet related requirements. | type: SliceProfile  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| NetworkSliceSubnetController.sliceProfileId | This attribute specifies the service profile identifier provided by the MnS producer for the network slice subnet related requirements specified in inputSliceProfile attribute or as specified as part of AllocateNssi operation (defined in TS 28.531 [26]). | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| NetworkSliceSubnetController.processMonitor | This attribute describes the process monitoring information of the fulfilment of the network slice subnet life cycle management. | type: ProcessMonitor  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| NetworkSliceSubnetController.networkSliceSubnetRef | This attribute specifies the DN of the NetworkSliceSubnet MOI, that the MnS producer has selected to fulfil the network slice subnet related requirements specified in inputSliceProfile attribute or as specified as part of AllocateNssi operation (defined in TS 28.531 [26]). | type: DN  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| availabilityStatus | It indicates the availability status of the fulfilment of network slice or the network slice subnet related requirements by the MnS producer.  allowedValues: "IN\_TEST", "FAILED", "POWER\_OFF", "OFF\_LINE ", "OFF\_DUTY", "DEPENDENCY", "DEGRADED", "NOT\_INSTALLED", "LOG\_FULL".  The meaning of these values is as defined in 3GPP TS 28.625 [17] and ITU-T X.731 [18]. | type: ENUM  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| nonIPSupport | An attribute specifies the non-IP Session support (Ethernet session and forwarding support) of the slice or slice subnet. See Clause 3.4.27 of GSMA NG.116 [50]. | type: NonIPSupport  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| NonIPSupport.support | An attribute specifies the non-IP Session support (Ethernet session and forwarding support) of the slice or slice subnet. See Clause 3.4.27 of GSMA NG.116 [50].  allowedValues:  "NOT SUPPORTED", "SUPPORTED". | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| NetworkSlice. isolationProfileRef | This holds the DN of IsolationProfile MOI representing the isolation requirements applied for the NetworkSlice MOI.  allowedValues: N/A | type: DN  multiplicity: 0..1  isOrdered: False  isUnique: N/A  defaultValue: None  isNullable: False |
| NetworkSliceSubnet. isolationProfileRef | This holds the DN of IsolationProfile MOI representing the isolation requirements applied for the NetworkSliceSubnet MOI.  allowedValues: N/A | type: DN  multiplicity: 0..1  isOrdered: False  isUnique: N/A  defaultValue: None  isNullable: False |
| IsolationProfileRef.networkSliceSubnetRefList | This holds a list of DN of NetworkSliceSubnet MOI to which the isolation is applicable.  allowedValues: N/A | type: DN  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| IsolationProfileRef.networkSliceRefList | This holds a list of DN of NetworkSlice MOI to which the isolation is applicable.  allowedValues: N/A | type: DN  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| IsolationProfileRef.resourceIsolationRuleList | An attribute which describes a set of isolation rules for the managed resources. | type: ResourceIsolationRule  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| resourceType | An attribute which describes the managed resource type for isolation.  MANAGED\_FUNCTION: Indicates the managed function instances are selected using the the isolation rule which is specified by isolationRule attribute.  NETWORK\_SERVICE: Indicates the Network Service (NS) information are selected using the isolation rule which is specified by isolationRule attribute.  allowedValues: “MANAGED\_FUNCTION”, “NETWORK\_SERVICE” | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| isolationRule | An attribute which describes the isolation requirement.  DEDICATED: The network slices are provided with exclusive network resources, preventing any interference between other network slices.  SHARED: Allows the network slice resources to be shared with other network slices.  allowedValues: DEDICATED, SHARED | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| networkSlicingApplicability | An attribute which describes if the isolation requirements are associated with NetworkSlice(s) or NetworkSliceSubnet(s).  allowedValues: NETWORKSLICE, NETWORKSLICESUBNET | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| TopSliceSubnetProfile.availability | An attribute specifies the required communication service availability (percentage) through the RAN, CN, and TN part of an end-to-end network slice. See clause 3.1 of TS 22.261 [28]. | type: Real  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| CNSliceSubnetProfile.availability | An attribute specifies the required communication service availability (percentage) through the CN domain of a network slice, i.e., CN slice subnet. The percentage value of the amount of time the CN slice subnet is delivered according to all the slice subnet related requirements listing in the CNSliceSubnetProfile, divided by the amount of time the system is expected to deliver the CN slice subnet. | type: Real  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| RANSliceSubnetProfile.availability | An attribute specifies the required communication service availability (percentage) through the RAN domain of a network slice, i.e., RAN slice subnet. The percentage value of the amount of time the RAN slice subnet is delivered according to all the slice subnet related requirements listing in the RANSliceSubnetProfile, divided by the amount of time the system is expected to deliver the RAN slice subnet. | type: Real  multiplicity: 0..1  isOrdered: N/A  isUnique: N/A  defaultValue: None  allowedValues: N/A  isNullable: False |
| TopSliceSubnetProfile.kPIMonitoring | An attribute specifies the name list of KPIs, related to all domains of the network slice, available for performance monitoring. | type: KPIMonitoring  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: True |
| RANSliceSubnetProfile.kPIMonitoring | An attribute specifies the name list of KPIs, related to the RAN domain network slice subnet, available for performance monitoring. | type: KPIMonitoring  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: True |
| supportedDataNetworks | An attribute specifies the supported data network of the slice or slice subnet. See Clause 3.4.39 of GSMA NG.116 [50]. | type: DataNetwork  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| DataNetwork.dnnList | An attribute specifies the list of supported data network (DNN, see ) of the slice or slice subnet. See Clause 3.4.39 of GSMA NG.116 [50]. | type: String  multiplicity: \*  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| dataNetworkAccess | An attribute specifies how the supported data networks handle the user data of the slice or slice subnet. See Clause 3.4.34 of GSMA NG.116 [50]. | type: DataNetworkAccess  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| DataNetworkAccess.dataAccessList | An attribute specifies Data access per data network for the supported data networks of the slice or slice subnet. See Clause 3.4.34 of GSMA NG.116 [50]. | type: DataAccess  multiplicity: \*  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| DataNetworkAccess.tunnellingMechanismList | An attribute specifies Tunnelling mechanism per data network for the supported data networks of the slice or slice subnet. See Clause 3.4.34 of GSMA NG.116 [50]. | type: TunnellingMechanism  multiplicity: \*  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| DataNetworkAccess.localBreakoutAllowedList | An attribute specifies whether a data network is available in Local Breakout while roaming for the supported data networks of the slice or slice subnet. See Clause 3.4.34 of GSMA NG.116 [50]. | type: LboAllowed  multiplicity: \*  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| DataAccess.dataNetworkName | An attribute specifies data network name of the supported data networks of the slice or slice subnet. See Clause 3.4.34 of GSMA NG.116 [50]. | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| DataAccess.dataAccessUsed | An attribute specifies Data access per data network for the supported data networks of the slice or slice subnet. See Clause 3.4.34 of GSMA NG.116 [50].  "DIRECT\_INTERNET\_ACCESS": Direct access to the Internet  "TERM\_PVT\_NETWORK": Termination in a private network (e.g., via tunnelling mechanism such as L2TP, VPN Virtual Private Network, tunnel, etc.)  "LOCAL\_TRAFFIC": All data traffic stays local to an operator network and the devices do not have access to the Internet or private network.  allowedValues:  "DIRECT\_INTERNET\_ACCESS", "TERM\_PVT\_NETWORK", "LOCAL\_TRAFFIC". | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| TunnellingMechanism.dataNetworkName | An attribute specifies data network name of the supported data networks of the slice or slice subnet. See Clause 3.4.34 of GSMA NG.116 [50]. | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| TunnellingMechanism.tunellingMechanismUsed | An attribute specifies Tunnelling mechanism for the supported data networks of the slice or slice subnet. See Clause 3.4.34 of GSMA NG.116 [50].  allowedValues:  "L2TP\_TUNNEL", "GRE\_TUNNEL", "VPN\_TUNNEL", "LABEL\_BASED\_ROUTING", “802.1Q\_VLAN”, “SRV6”, "OTHER". | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| LboAllowed.dataNetworkName | An attribute specifies data network name of the supported data networks of the slice or slice subnet. See Clause 3.4.34 of GSMA NG.116 [50]. | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| LboAllowed.localBreakoutAllowed | An attribute specifies whether a data network is available in Local Breakout while roaming for the supported data networks of the slice or slice subnet. See Clause 3.4.34 of GSMA NG.116 [50].  allowedValues:  "YES", "NO". | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| ServiceProfile.sliceAvailability | This attribute provides information about the time at which the slice or slice subnet instance is scheduled to be available. | type: SchedulingTime  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| CNSliceSubnetProfile.sliceSubnetAvailability | This attribute provides information about the time at which the slice or slice subnet instance is scheduled to be available. | type: SchedulingTime  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| TopSliceSubnetProfile.sliceSubnetAvailability | This attribute provides information about the time at which the slice or slice subnet instance is scheduled to be available. | type: SchedulingTime  multiplicity: \*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |
| NOTE 1: There is no direct relationship between localAddress/remoteAddress in EP\_RP and ipAddress in EP\_transport. While the localAddress/remoteAddress in EP\_RP could be exchanged as part of signalling between GTP-u tunnel end points, ipAddress in EP\_transport is used for transport routing.  NOTE 2: void  NOTE 3: energy efficiency requirement for V2X is not part of the current document. | | |

***End of change***