**3GPP TSG-SA5 Meeting #155 *S5-243278***

**Jeju, South Korea, 27 - 31 May 2024**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **28.541** | **CR** | **1232** | **rev** | **-** | **Current version:** | **18.7.0** |  |
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| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

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|  |
| ***Title:***  | Rel-19 CR TS 28.541 Add xxInfoList to UPFFunction, SMFFunction, PCFFunction, and BSFFunction |
|  |  |
| ***Source to WG:*** | ZTE Corporation, Orange |
| ***Source to TSG:*** | S5 |
|  |  |
| ***Work item code:*** | AdNRM\_Ph3 |  | ***Date:*** | 2024-05-07 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***Release:*** | Rel-19 |
|  | *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 canbe 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-15 (Release 15)Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)* |
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| ***Reason for change:*** | 1. SMFInfoList is introduced in CT4 in Rel-16, see C4-192475. One SMF instance may serve multiple combinations of slice instances and TAs. Only one smfInfo does not allow this flexiblity.
2. UPFInfoList is introduced in CT4 in Rel-16, see C4-192476. Multiple upfInfo allow to define different TAI list for each supported S-NSSAI. Only one upfInfo does not allow this flexiblity.
3. PCFInfoList is introduced in CT4 in Rel-16, see C4-192473. The current pcfInfo in the NF profile contains only one entry with DNN list and supiRange list, which means the PCF can serve ALL the DNNs for ALL the supiRanges. Multiple pcfInfo should be allowed to define different DNN list for each supiranges.
4. BCFInfoList is introduced in CT4 in Rel-16, see C4-192474. BSF may provide binding service for various combinations of IPv4 addresses and ipDomains. For exampl, one BSF can serve IPv4 range#1 + range#2 for ipDomain#1, and IPv4 range#1 for ipDomain#2, but not IPv4 range#2 for ipDomain#2. The current bsfInfo does not allow this flexibility
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| ***Summary of change:*** | Correct the mutiplicity of UPFInfo, SMFInfo, PCFInfo, and BSFInfo to align with CT4. |
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| ***Consequences if not approved:*** | Inconsistent atttibutes may cause misunderstanding. |
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| ***Clauses affected:*** | 5.4.1 |
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|  | **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 S5-242411 |

***Start of Fifth change***

## 5.4 Attribute definitions

### 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: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: 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: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: False |
| aMFSetMemberList | It is the list of DNs of AMFFunction instances of the AMFSet. allowedValues: N/A | type: DNmultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: False |
| gUAMIdList | List of supported Globally Unique AMF Ids (GUAMIs). | type: GUAMInfomultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneallowedValues: N/AisNullable: False |
| backupInfoAmfFailure | List of GUAMIs for which the AMF acts as a backup for AMF failure. | type: GUAMInfomultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneallowedValues: N/AisNullable: False |
| backupInfoAmfRemoval | List of GUAMIs for which the AMF acts as a backup for planned AMF removal. | type: GUAMInfomultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneallowedValues: N/AisNullable: 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: Stringmultiplicity: 2isOrdered: TrueisUnique: TruedefaultValue: NoneisNullable: 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: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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]. | type: <<dataType>>multiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneallowedValues: N/AisNullable: 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: Stringmultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneallowedValues: N/AisNullable: 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: ENUMmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: ENUMmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| sNSSAIList | See subclause 4.4.1. |  |
| pLMNInfoList | It defines the PLMN(s) of a Network Function.  | type: PLMNInfomultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneallowedValues: N/AisNullable: 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: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: 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: Stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: False |
| sBIServiceList | It is used to indicate the all supported NF services registered on service-based interface. | type: Stringmultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneallowedValues: N/AisNullable: 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: Stringmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneallowedValues: N/AisNullable: False |
| taiList | The list of TAIs.  | type: TAImultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneallowedValues: N/AisNullable: False |
| taiRangeList | The range of TAIs. | type: TAIRangemultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneallowedValues: N/AisNullable: False |
| sNssaiSmfInfoList | List of parameters supported by the SMF per S-NSSAI | type: SnssaiSmfInfoItemmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: False |
| dnnSmfInfoList | List of parameters supported by the SMF per DNN | type: DnnSmfInfoItemmultiplicity: 1..NisOrdered: FalseisUnique: TruedefaultValue: NoneallowedValues: N/AisNullable: 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: stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: 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: stringmultiplicity: 1..NisOrdered: FalseisUnique: TruedefaultValue: NoneallowedValues: N/AisNullable: False |
| pgwFqdn | The FQDN of the PGW if the SMF is a combined SMF/PGW-C. | type: stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: 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: IpAddrmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: 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 absence the V-SMF capability support of the SMF is not specified. | type: booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: 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: stringmultiplicity: 0..NisOrdered: FalseisUnique: TruedefaultValue: NoneallowedValues: N/AisNullable: False |
| nRTACRangeList | The range of TACs. | type: nrTACRangemultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneallowedValues: N/AisNullable: 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})$" | type: Stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: False |
| nRTACend | Last value identifying the end of a TAC range, to be used when the range of TAC's can be represented as a hexadecimal range (e.g. TAC ranges). 3-octet string identifying a tracking area code, each character in the string shall take a value of "0" to "9" or "A" to "F" and shall represent 4 bits. The most significant character representing the 4 most significant bits of the TAC shall appear first in the string, and the character representing the 4 least significant bit of the TAC shall appear last in the string.Pattern: "^([A-Fa-f0-9]{4}|[A-Fa-f0-9]{6})$" | type: Stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: 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: Stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: False |
| supportedBMOList | It is used to indicate the list of supported BMOs (Bridge Managed Objects) required for integration with TSN system. | type: Stringmultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneallowedValues: N/AisNullable: False |
| managedNFProfile | This parameter defines profile for managed NF (See TS 23.501 [2]). allowedValues: N/A | type: ManagedNFProfilemultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: 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: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| nfType | This parameter defines type of Network FunctionallowedValues: See TS 23.501[2] for NF types | type: ENUMmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| heartBeatTimer | Time between two consecutive heart-beat messages from an NF Instance to the NRF defined in seconds.  | type: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: 0isNullable: False |
| fqdn | This parameter defines FQDN of the Network Function (See TS 23.003 [13])allowedValues: N/A | type: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| allowedPLMNs | PLMNs allowed to access the NF instance.If not provided, any PLMN is allowed to access the NF. | type: PLMNIdmultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: SNPNInfomultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: ENUMmultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Stringmultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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-NSSAImultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: 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: DateTimemultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: 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: Booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: 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, orset<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: Stringmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneallowedValues: N/AisNullable: 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: Booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: 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: DefaultNotificationSubscriptionmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneallowedValues: N/AisNullable: 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: ENUMmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: 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: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: False |
| n1MessageClass | This attribute (if it is present) identifies that class of N1 messages shall be notified as per TS 29.518 [80].  | type: Booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: False |
| n2InformationClass | This attribute (if it is present) identifies that class of N2 messages shall be notified as per TS 29.518 [80].  | type: Booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: False |
| versions | This attribute identifies the API versions (e.g. "v1") supported for the default notification type.  | type: Stringmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneallowedValues: N/AisNullable: 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: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: False |
| servingScope | This parameter indicates the served geographical areas of a NF instance. | type: Stringmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneallowedValues: N/AisNullable: 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: Booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: FalseallowedValues: N/AisNullable: 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: Booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: FalseallowedValues: N/AisNullable: False  |
| nfSetRecoveryTimeList | This parameter contains the recovery time of NF Set(s) indicated by the NfSetId, where the NF instance belongs. | type: DateTimemultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneallowedValues: N/AisNullable: 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: DateTimemultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneallowedValues: N/AisNullable: 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: Stringmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneallowedValues: N/AisNullable: 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: Stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: False |
| hostAddr | This parameter defines host address of a NFallowedValues: N/A | type: HostAddrmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: 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: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: 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: ENUMmultiplicity: 1..\*isOrdered: FalseisUnique: FalsedefaultValue: NoneisNullable: 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: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Stringmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: InterfaceUpfInfoItemmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| interfaceType | This parameter defines the type of User Plane (UP) interface. allowedValues:"N3""N6""N9""DATA\_FORWARDING""N6MB""N19MB""N3MB""NMB9" | type: ENUMmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| ipv4EndpointAddresses | Available endpoint IPv4 address(es) of the User Plane interface. | type: ipv4Addrmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| ipv6EndpointAddresses | Available endpoint IPv6 address(es) of the User Plane interface. | type: ipv6Addrmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| networkInstance | Network Instance (See TS 29.244 [56]) associated to the User Plane interface | type: stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| iwkEpsInd | Indicates whether interworking with EPS is supported by the UPF.allowedValues:True: SupportedFalse: Not Supported | type: Booleanmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: FalseisNullable: False |
| pduSessionTypes | Indicates the type of a PDU session. allowedValues:“IPv4”“IPv6”“IPv4v6” as per clause 5.8.2.2.1 TS 23.501 [2]“UNSTRUCTURED”“ETHERNET” | type: ENUMmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: FalseisNullable: False |
| atsssCapability | Indicate the ATSSS capability of the UPF. | type: AtsssCapabilitymultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: FalseisNullable: 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: SupportedFalse: Not Supported | type: Booleanmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: FalseisNullable: 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: SupportedFalse: Not Supported | type: Booleanmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: FalseisNullable: 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: SupportedFalse: Not Supported. | type: Booleanmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: FalseisNullable: False |
| ueIpAddrInd | Indicates whether the UPF supports allocating UE IP addresses/prefixes.allowedValues:True: supportedFalse: not supported | type: Booleanmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: FalseisNullable: 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: IpInterfacemultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: FalseisNullable: 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: IpInterfacemultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: FalseisNullable: 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: IpInterfacemultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: FalseisNullable: False |
| redundantGtpu | Indicates whether the UPF supports redundant GTP-U path.allowedValues:True: supportedFalse: not supported | type: Booleanmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: FalseisNullable: 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: Booleanmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: FalseisNullable: 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 forwardingFalse: the UPF is not configured for data forwardingIf the UPF is configured for data forwarding, it shall support UP network interface with type "DATA\_FORWARDING". | type: Booleanmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: FalseisNullable: 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: Stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: ENUMmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: commModelmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| groupId | This parameter identiies a list of target NF services on which the same communication model is applied to. allowedValues: N/A | type: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: ENUMmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: False |
| targetNFServiceList | This parameter lists target NF services sharing same communication model and configuration.allowedValues: N/A | type: DNmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| commModelConfiguration | This parameter defines configuration parameters for specific communication model for a group of NF Services.allowedValues: N/A | type: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| supportedFuncList | This parameter lists functionalities supported by a SCP. Refer to TS 23.501 [2]. | type: SupportedFunctionmultiplicity: 1..\*isOrdered: FalseisUnique: FalsedefaultValue: NoneisNullable: 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: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: False |
| function | This parameter defines name of a functionality supported by a SCP. | type: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| policy | This parameter defines configuration policies of a functionality supported by a SCP. | type: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: False |
| capabilityList | This parameter lists capabilities supported by a NEF. Refer to TS 23.501 [2].allowedValues: N/A | type: Stringmultiplicity: 1..\*isOrdered: FalseisUnique: FalsedefaultValue: NoneisNullable: False |
| isCAPIFSup | This parameter defines if the NEF support Common API Framework.allowedValues: TRUE, FALSE | type: Booleanmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| sEPPType | This parameter defines the type of a SEPP entity. Refer to TS 33.501 [52].allowedValues: “CSEPP”, “PSEPP” | type: ENUMmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| sEPPId | This parameter is identifier of a SEPP, it is unique inside a PLMN. allowedValues: N/A | type: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: False |
| remotePlmnId | This parameter defines PLMNId of the remote SEPP.allowedValues: N/A | Type: PLMNId multiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| remoteSeppId | This parameter defines identifier of the remote SEPP. it is unique inside a PLMN.allowedValues: N/A | type: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: False |
| n32cParas | This attribute is used to configure parameters to establish security link between two SEPPs. allowedValues: N/A | type: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| n32fPolicy | This attribute is used to configure policies to protect the messages exchanged between SEPPs.allowedValues: N/A | type: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| withIPX | This attribute defines if there’s an IPX interconnected between two SEPPs.allowedValues: TRUE, FALSE | type: Booleanmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: False |
| FiveQiDscpMappingList | It provides the list of mapping between 5QIs and DSCP.allowedValues: N/A | type: FiveQiDscpMappingmultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| fiveQIValues | It indicates a list of 5QI value.allowedValues: 0 - 255 | type: Integermultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| dscp | It indicates a DSCP.allowedValues: 0 – 255 | type: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| configurable5QISetRef | This is the DN of Configurable5QISet. allowedValues: DN of the Configurable5QISet MOI. | type: DNmultiplicity: 0..1isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| dynamic5QISetRef | This is the DN of Dynamic5QISet MOI. allowedValues: DN of the Dynamic5QISet MOI. | type: DNmultiplicity: 0..1isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| fiveQIValue | It identifies the 5QI value.allowedValues: 0 – 255 | type: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: ENUMmultiplicity: 1isOrdered: N/AisUnique: FalsedefaultValue: NoneisNullable: False |
| priorityLevel | It indicates the Priority Level of a 5QI, as specified in TS 23.501 [2].allowedValues: 0 - 127 | type: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| packetErrorRate | It indicates the Packet Error Rate of a 5QI, as specified in TS 23.501 [2].allowedValues: N/A | type: PacketErrorRatemultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| gtpUPathQoSMonitoringState | It indicates the state of GTP-U path QoS monitoring for URLLC service.allowedValues: "Enabled", "Disabled". | type: ENUMmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: EnabledisNullable: 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-NSSAImultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Integermultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: “Yes”, “No”. | type: Booleanmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: YesisNullable: False |
| isPeriodicGtpUMonitoringSupported | It indicates whether the periodic GTP-U path QoS monitoring reporting is supported, see 3GPP TS 29.244 [56].allowedValues: “Yes”, “No”. | type: Booleanmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: YesisNullable: False |
| isImmediateGtpUMonitoringSupported | It indicates whether the immediate GTP-U path QoS monitoring reporting is supported, see 3GPP TS 29.244 [56].allowedValues: “Yes”, “No”. | type: Booleanmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: YesisNullable: 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: GtpUPathDelayThresholdsTypemultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| qFQoSMonitoringState | It indicates the state of QoS monitoring per QoS flow per UE for URLLC service.allowedValues: "Enabled", "Disabled". | type: ENUMmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: EnabledisNullable: 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-NSSAImultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Integermultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: “Yes”, “No”. | type: Booleanmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: YesisNullable: False |
| isPeriodicQFMonitoringSupported | It indicates whether the periodic QoS monitoring reporting per QoS flow per UE is supported, see 3GPP TS 29.244 [56].allowedValues: “Yes”, “No”. | type: Booleanmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: YesisNullable: 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: “Yes”, “No”. | type: Booleanmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: YesisNullable: 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: QFPacketDelayThresholdsTypemultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| predefinedPccRules | It specifies the predefined PCC Rules, see TS 25.503 [59].allowedValues: N/A | type: PccRulemultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False  |
| pccRuleId | It identifies the PCC rule.allowedValues: N/A | type: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| flowInfoList | It is a list of IP flow packet filter information.allowedValues: N/A | type: FlowInformationmultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| applicationId | A reference to the application detection filter configured at the UPF.allowedValues: N/A | type: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| appDescriptor | It is the ATSSS rule application descriptor.allowedValues: see TS 29.571 [61]. | type: BitStringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| contentVersion | Indicates the content version of the PCC rule.allowedValues: N/A | type: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| afSigProtocol | Indicates the protocol used for signalling between the UE and the AF. The default value is "NO\_INFORMATION".allowedValues: “NO\_INFORMATION”, “SIP”. | type: ENUMmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: “NO\_INFORMATION”isNullable: False |
| isAppRelocatable | It indicates the application relocation possibility. The default value is "FALSE.allowedValues: “TRUE”, “FALSE”.  | type: Booleanmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| isUeAddrPreserved | It Indicates whether UE IP address should be preserved.The default value is "FALSE".allowedValues: “TRUE”, “FALSE”. | type: Booleanmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: “FALSE”isNullable: False |
| qosData | It contains the QoS control policy data for a PCC rule.allowedValues: N/A | type: QoSDatamultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: QoSDatamultiplicity: \*isOrdered: TrueisUnique: TruedefaultValue: NoneisNullable: False |
| trafficControlData | It contains the traffic control policy data for a PCC rule.allowedValues: N/A | type: TrafficControlDatamultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| conditionData | It contains the condition data for a PCC rule.allowedValues: N/A | type: ConditionDatamultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| flowDescription | It defines a packet filter for an IP flow.allowedValues: see TS 29.214 [62]. | type: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| ethFlowDescription | It defines a packet filter for an Ethernet flow.allowedValues: see TS 29.514 [62]. | type: EthFlowDescriptionmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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})$'.allowedValues: N/A. | type: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| ethType | A two-octet string that represents the Ethertype, as described in IEEE 802.3 [64] and IETF RFC 7042 [63] in hexadecimal representation.Each character in the string shall take a value of "0" to "9" or "A" to "F" and shall represent 4 bits. The most significant character representing the 4 most significant bits of the ethType shall appear first in the string, and the character representing the 4 least significant bits of the ethType shall appear last in the string.allowedValues: see IEEE 802.3 [64] and IETF RFC 7042 [63]. | type: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| fDesc | It contains the flow description for the Uplink or Downlink IP flow. It shall be present when the ethtype is IP.allowedValues: see flowDescription in TS 29.214 [62]. | type: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| fDir | It indicates the packet filter direction. allowedValues: "DOWNLINK", "UPLINK".  | type: ENUMmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| sourceMacAddr | It specifies the source MAC address formatted in the hexadecimal notation according to clause 1.1 and clause 2.1 of IETF RFC 7042 [63].Pattern: '^([0-9a-fA-F]{2})((-[0-9a-fA-F]{2}){5})$'.allowedValues: N/A. | type: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Stringmultiplicity: \*isOrdered: TrueisUnique: TruedefaultValue: NoneisNullable: 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: Stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| packFiltId | It is the identifier of the packet filter.allowedValues: N/A. | type: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| packetFilterUsage | It indicates if the packet shall be sent to the UE. The default value is "FALSE".allowedValues: TRUE, FALSE | type: Booleanmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: “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: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| spi | It is the security parameter index of the IPSec packet, see IETF RFC 4301 [66].allowedValues: see IETF RFC 4301 [66]. | type: Stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| flowLabel | It specifies the Ipv6 flow label header field.AllowedValues: N/A | type: Stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| flowDirection | It indicates the direction/directions that a filter is applicable.AllowedValues: “DOWNLINK”, “UPLINK”, “BIDIRECTIONAL”, “UNSPECIFIED”. | type: ENUMmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| qosId | It identifies the QoS control policy data for a PCC rule.AllowedValues: N/A | type: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| maxbrUl | It represents the maximum uplink bandwidth formatted as follows:Pattern: '^\d+(\.\d+)? (bps|Kbps|Mbps|Gbps|Tbps)$', see TS 29.512 [60].Examples:"125 Mbps", "0.125 Gbps", "125000 Kbps"AllowedValues: N/A | type: Stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| maxbrDl | It represents the maximum downlink bandwidth formatted as follows:Pattern: '^\d+(\.\d+)? (bps|Kbps|Mbps|Gbps|Tbps)$', see TS 29.512 [60].Examples:"125 Mbps", "0.125 Gbps", "125000 Kbps".AllowedValues: N/A. | type: Stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| gbrUl | It represents the guaranteed uplink bandwidth formatted as follows:Pattern: '^\d+(\.\d+)? (bps|Kbps|Mbps|Gbps|Tbps)$', see TS 29.512 [60].Examples:"125 Mbps", "0.125 Gbps", "125000 Kbps".AllowedValues: N/A. | type: Stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| gbrDl | It represents the guaranteed downlink bandwidth formatted as follows:Pattern: '^\d+(\.\d+)? (bps|Kbps|Mbps|Gbps|Tbps)$', see TS 29.512 [60].Examples:"125 Mbps", "0.125 Gbps", "125000 Kbps".AllowedValues: N/A. | type: Stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Integermultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| arp | It indicates the allocation and retention priority.AllowedValues: N/A. | type: ARPmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| ARP.priorityLevel | It defines the relative importance of a resource request. AllowedValues: 1..15. | type: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: ENUMmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: ENUMmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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. The default value is "FALSE".AllowedValues: "TRUE", "FALSE". | type: Booleanmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: “FALSE”isNullable: False |
| reflectiveQos | Indicates whether the QoS information is reflective for the corresponding non-GBR service data flow. The default value is "FALSE".AllowedValues: "TRUE", "FALSE". | type: Booleanmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: “FALSE”isNullable: False |
| sharingKeyDl | It indicates, by containing the same value, what PCC rules may share resource in downlink direction.AllowedValues: N/A. | type: Stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| sharingKeyUl | It indicates, by containing the same value, what PCC rules may share resource in uplink direction.AllowedValues: N/A. | type: Stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| maxPacketLossRateDl | It indicates the downlink maximum rate for lost packets that can be tolerated for the service data flow.AllowedValues: 0..1000. | type: Integermultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| maxPacketLossRateUl | It indicates the uplink maximum rate for lost packets that can be tolerated for the service data flow.AllowedValues: 0..1000. | type: Integermultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| tcId | It univocally identifies the traffic control policy data within a PDU session.AllowedValues: N/A. | type: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| flowStatus | It represents whether the service data flow(s) are enabled or disabled. The default value is "ENABLED". See TS 29.514 [67].AllowedValues: “ENABLED-UPLINK”, “ENABLED-DOWNLINK”, “ENABLED”, “DISABLED”, “REMOVED”.  | type: ENUMmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: “ENABLED”isNullable: False |
| redirectInfo | It indicates whether the detected application traffic should be redirected to another controlled address.AllowedValues: N/A. | type: RedirectInformationmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: “ENABLED”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: RedirectInformationmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: “ENABLED”isNullable: False |
| redirectEnabled | It indicates whether the redirect instruction is enabled.AllowedValues: "TRUE", "FALSE". | type: Booleanmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| redirectAddressType | It indicates the type of redirect address, see TS 29.512 [60].AllowedValues: " IPV4\_ADDR", "IPV6\_ADDR", “URL”, “SIP\_URI”. | type: ENUMmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| redirectServerAddress | It indicates the address of the redirect server.AllowedValues: N/A. | type: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| muteNotif | It indicates whether applicat'on's start or stop notification is to be muted. The default value is "FALSE".AllowedValues: "TRUE", "FALSE". | type: Booleanmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: “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: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| routeToLocs | It provides a list of location which the traffic shall be routed to for the AF request.AllowedValues: N/A. | type: RouteToLocationmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| traffCorreInd | It indicates the traffic correlation.AllowedValues: "TRUE", "FALSE". | type: Booleanmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: “FALSE”isNullable: False |
| dnai | It represents the DNAI (Data network access identifier), see 3GPP TS 23.501 [2].AllowedValues: N/A. | type: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| routeInfo | It provides the traffic routing information.AllowedValues: N/A. | type: RouteInformationmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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])$'.AllowedValues: N/A. | type: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| ipv6Addr | It defines the Ipv6 address of the tunnel end point in the data network.Pattern: '^((:|(0?|([1-9a-f][0-9a-f]{0,3}))):)((0?|([1-9a-f][0-9a-f]{0,3})):){0,6}(:|(0?|([1-9a-f][0-9a-f]{0,3})))$'andPattern: '^((([^:]+:){7}([^:]+))|((([^:]+:)\*[^:]+)?::(([^:]+:)\*[^:]+)?))$'.AllowedValues: N/A. | type: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| ipv6AddrPrefix | String identifying an IPv6 address prefix formatted according to clause 4 of IETF RFC 5952 [82]. IPv6Prefix data type may contain an individual /128 IPv6 address.Pattern: '^((:|(0?|([1-9a-f][0-9a-f]{0,3}))):)((0?|([1-9a-f][0-9a-f]{0,3})):){0,6}(:|(0?|([1-9a-f][0-9a-f]{0,3})))(\/(([0-9])|([0-9]{2})|(1[0-1][0-9])|(12[0-8])))$'andPattern: '^((([^:]+:){7}([^:]+))|((([^:]+:)\*[^:]+)?::(([^:]+:)\*[^:]+)?))(\/.+)$' | type: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| routeProfId | It identifies the routing profile.AllowedValues: N/A. | type: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| upPathChgEvent | It contains the information about the AF subscriptions of the UP path change.AllowedValues: N/A. | type: UpPathChgEventmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| notificationUri | It provides notification address (Uri) of AF receiving the event notification.AllowedValues: N/A. | type: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| dnaiChgType | It indicates the type of DNAI change, see TS 29.512 [60].AllowedValues: “EARLY”, “EARLY\_LATE”, “LATE”. | type: ENUMmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| afAckInd | It identifies whether the AF acknowledgement of UP path event notification is expected.The default value is "FALSE".AllowedValues: “TRUE”, “FALSE”. | type: Booleanmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: “FALSE”isNullable: False |
| steerFun | It indicates the applicable traffic steering functionality, see TS 29.512 [60].AllowedValues: “MPTCP”, “ATSSS\_LL”. | type: ENUMmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| steerModeDl | It provides the traffic distribution rule across 3GPP and Non-3GPP accesses to apply for downlink traffic.AllowedValues: N/A. | type: SteeringModemultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| steerModeUl | It provides the traffic distribution rule across 3GPP and Non-3GPP accesses to apply for uplink traffic.AllowedValues: N/A. | type: SteeringModemultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| mulAccCtrl | It indicates whether the service data flow, corresponding to the service data flow template, is allowed or not allowed. The default value is "NOT\_ALLOWED".AllowedValues: "ALLOWED", "NOT\_ALLOWED". | type: ENUMmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: "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: ENUMmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| active | It indicates the active access, see TS 29.571 [61].AllowedValues: "3GPP\_ACCESS", "NON\_3GPP\_ACCESS". | type: ENUMmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| standby | It indicates the Standby access, see TS 29.571 [61].AllowedValues: "3GPP\_ACCESS", "NON\_3GPP\_ACCESS". | type: ENUMmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| threeGLoad | It indicates the traffic load to steer to the 3GPP Access expressed in one percent. AllowedValues: 0..100. | type: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| prioAcc | It indicates the high priority access, see TS 29.571 [61].AllowedValues: "3GPP\_ACCESS", "NON\_3GPP\_ACCESS". | type: ENUMmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| condId | It uniquely identifies the condition data.AllowedValues: N/A. | type: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: DateTimemultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: DateTimemultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| accessType | It provides the condition of access type of the UE when the session AMBR shall be enforced, see TS 29.512 [60].AllowedValues: "3GPP\_ACCESS", "NON\_3GPP\_ACCESS". | type: ENUMmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: ENUMmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: DateTimemultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| nsacfInfoSnssaiList | It represents a list of NSACF information per S-NSSAI.AllowedValues: N/A | type: NsacfInfoSnssaimultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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 SliceAllowedValues: N/A. | type: SnssaiInfomultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Booleanmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: FalseisNullable: 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: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: 0isNullable: False |
| eACMode | It represents if early admission control (EAC) mode is activated.AllowedValues: Active, Inactive | type: ENUMmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: InactiveisNullable: 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: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: 0isNullable: 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 - 100Note: If this attribute is absent, activeEacThreshhold is used to trigger deactivation of eACMode. | type: Integermultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: 100isNullable: False |
| numberofUEs | It represents the number of the UEs registered with the network slice. This attribute is updated by NSACF.AllowedValues: 0 - 65535 | type: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| uEIdList | It represents the UEs registered with the network slice. This attribute is updated by NSACF.AllowedValues: N/A | type: Stringmultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| networkSliceInfoList | The attribute specifies a list of NetworkSliceInfo which is defined as a datatype (see clause 5.3.95). It can be used by the NWDAF to facilitate the data collection from OAM.allowedValues: N/A | type: NetworkSliceInfomultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| networkSliceRef | This holds a DN of the NetworkSlice managed object relating to the NetworkSlice instance differentiated by sNSSAI and optional cNSIId. | type: DNmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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-NSSAImultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: 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: Stringmultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneallowedValues: N/AisNullable: 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: Stringmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneallowedValues: N/AisNullable: 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: DNmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| aMFSetRef | This is the DN of AMFSet. allowedValues: N/A | type: DNmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| aMFRegion.aMFSetListRef | This holds a list of DN of AMFSet instances in the same AMFRegion instance. allowedValues: N/A | type: DNmultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues:N/AisNullable: False |
| eASServiceArea | This parameter defines the EAS service area (see clause 7.3.3.6 in TS 23.558 [81]).allowedValues: N/A | type: ServingLocationmultiplicity: 1isOrdered: N/AisUnique: NAdefaultValue: NoneisNullable: False |
| eESServiceArea | This parameter defines the EES service area (see clause 7.3.3.5 in TS 23.558 [81]).allowedValues: N/A | type: ServingLocationmultiplicity: 1isOrdered: N/AisUnique: NAdefaultValue: NoneisNullable: False |
| eDNServiceArea | This parameter defines the EDN service area (see clause 7.3.3.4 in TS 23.558 [81]).allowedValues: N/A | type: ServingLocationmultiplicity: 1isOrdered: N/AisUnique: NAdefaultValue: NoneisNullable: 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: 5GCNfConnEcmInfomultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| 5GCNFType | It indicates the type of a NF instance.AllowedValues:"PCF", "NEF", "SCEF". | type: ENUMmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| 5GCNFRef | This attribute holds the DN of a NF instance.allowedValues: N/A | type: DNmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| ednIdentifier | The identifier of the edge data network (See TS 23.558 [81]).allowedValues: N/A | type: stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Stringmultiplicity: 1isOrdered: N/AisUnique: NAdefaultValue: NoneisNullable: 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: Stringmultiplicity: 1isOrdered: N/AisUnique: NAdefaultValue: NoneisNullable: 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: UPFConnInfomultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| uPFRef | This attribute holds the DN of an UPF instance.allowedValues: N/A | type: DNmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: ENUMmultiplicity: 0..1isOrdered: N/AisUnique: NAdefaultValue: NoneisNullable: 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 NWDAFEventsallowedValues: the detailed ENUM value for NwdafEvent see the Table 5.1.6.3.4-1 in TS 29.520[85]. | type: NwdafEventmultiplicity: \*isOrdered: TrueisUnique: TruedefaultValue: NoneisNullable: 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: ENUMmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Stringmultiplicity: 0..1isOrdered: N/AisUnique: NAdefaultValue: NoneisNullable: 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: stringmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| supiRanges | It represents list of ranges of SUPIs that can be served by the PCF instance.allowedValues: N/A | type: SupiRangemultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| PcfInfo.gpsiRanges  | It represents list of ranges of GPSIs that can be served by the PCF instance.allowedValues: N/A | type: IdentityRangemultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Stringmultiplicity: 0..1isOrdered: N/AisUnique: NAdefaultValue: NoneisNullable: 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]+$"AllowedValues: N/A | type: Stringmultiplicity: 0..1isOrdered: N/AisUnique: NAdefaultValue: NoneisNullable: False |
| SupiRange.pattern | It indicates the pattern (regular expression according to the ECMA-262 dialect [75]) representing the set of SUPI's belonging to this range. A SUPI value is considered part of the range if and only if the SUPI string fully matches the regular expression.AllowedValues: N/A | type: Stringmultiplicity: 0..1isOrdered: N/AisUnique: NAdefaultValue: NoneisNullable: False |
| IdentityRange.start | It indicates the first value identifying the start of an identity range, to be used when the range of identities can be represented as a numeric range (e.g., MSISDN ranges). This string shall consist only of digits.Pattern: "^[0-9]+$"AllowedValues: N/A | type: Stringmultiplicity: 0..1isOrdered: N/AisUnique: NAdefaultValue: NoneisNullable: 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: Stringmultiplicity: 0..1isOrdered: N/AisUnique: NAdefaultValue: NoneisNullable: 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: Stringmultiplicity: 0..1isOrdered: N/AisUnique: NAdefaultValue: NoneisNullable: 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: Stringmultiplicity: 0..1isOrdered: N/AisUnique: NAdefaultValue: NoneisNullable: 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: Stringmultiplicity: 0..1isOrdered: N/AisUnique: NAdefaultValue: NoneisNullable: False |
| v2xSupportInd | It indicates whether V2X Policy/Parameter provisioning is supported by the PCF. TRUE: SupportedFALSE (default): Not SupportedAllowedValues: TRUE, FALSE | type: Booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: “FALSE”isNullable: False |
| proseSupportInd | It indicates whether ProSe capability is supported by the PCF.TRUE: SupportedFALSE (default): Not SupportedAllowedValues: TRUE, FALSE | type: Booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: “FALSE”isNullable: False |
| proseCapability | It indicates the supported ProSe Capability by the PCF. | type: ProSeCapabilitymultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| v2xCapability | It indicates the supported V2X Capability by the PCF. | type: V2xCapabilitymultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| proseDirectDiscovery | It indicates whether the PCF supports ProSe Direct Discovery:- true: ProSe Direct Discovery is supported by the PCF- false (default): ProSe Direct Discovery is not supported by the PCF.AllowedValues: TRUE, FALSE | type: Booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: “FALSE”isNullable: False |
| proseDirectCommunication  | It indicates whether the PCF supports ProSe Direct Communication:- true: ProSe Direct Communication is supported by the PCF- false (default): ProSe Direct Communication is not supported by the PCF.AllowedValues: TRUE, FALSE | type: Booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: “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 (default): ProSe Layer-2 UE-to-Network Relay is not supported by the PCF.AllowedValues: TRUE, FALSE | type: Booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: “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 (default): ProSe Layer-3 UE-to-Network Relay is not supported by the PCF.AllowedValues: TRUE, FALSE | type: Booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: “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 (default): ProSe Layer-2 Remote UE is not supported by the PCF.AllowedValues: TRUE, FALSE | type: Booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: “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 (default): ProSe Layer-3 Remote UE is not supported by the PCF.AllowedValues: TRUE, FALSE | type: Booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: “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: Booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: “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: Booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: “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: Stringmultiplicity: 0..1isOrdered: N/AisUnique: NAdefaultValue: NoneisNullable: False |
| supiRanges | It represents list of ranges of SUPIs whose profile data is available in the UDM instance.AllowedValues: N/A | type: SupiRangemultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| UdmInfo.gpsiRanges | It represents list of ranges of GPSIs whose profile data is available in the UDM instance.AllowedValues: N/A | type: IdentityRangemultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| UdmInfo.externalGroupIdentifiersRanges | It represents list of ranges of external groups whose profile data is available in the UDM instance.AllowedValues: N/A | type: IdentityRangemultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Stringmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: InternalGroupIdRangemultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Stringmultiplicity: 0..1isOrdered: N/AisUnique: NAdefaultValue: NoneisNullable: 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: Stringmultiplicity: 0..1isOrdered: N/AisUnique: NAdefaultValue: NoneisNullable: 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: Stringmultiplicity: 0..1isOrdered: N/AisUnique: NAdefaultValue: NoneisNullable: 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: SuciInfomultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Stringmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Integermultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Stringmultiplicity: 0..1isOrdered: N/AisUnique: NAdefaultValue: NoneisNullable: False |
| supiRanges | It represents list of ranges of SUPI's whose profile data is available in the UDR instance.AllowedValues: N/A | type: SupiRangemultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| UdmInfo.gpsiRanges | It represents list of ranges of GPSIs whose profile data is available in the UDR instance.AllowedValues: N/A | type: IdentityRangemultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| externalGroupIdentifiersRanges | It represents list of ranges of external groups whose profile data is available in the UDR instance.AllowedValues: N/A | type: IdentityRangemultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| sharedDataIdRanges | It represents list of ranges of Shared Data IDs that identify shared data available in the UDR instance.AllowedValues: N/A | type: SharedDataIdRangemultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Stringmultiplicity: 0..1isOrdered: N/AisUnique: NAdefaultValue: NoneisNullable: 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: UdsFInfomultiplicity: 0..1isOrdered: N/AisUnique: NAdefaultValue: NoneisNullable: 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: Stringmultiplicity: 0..1isOrdered: N/AisUnique: NAdefaultValue: NoneisNullable: False |
| UdsfInfo.supiRanges | This attribute represents a list of ranges of SUPIs whose profile data is available in the UDSF instanceIf not provided, then the UDSF can serve any SUPI range.AllowedValues: N/A | type: SupiRangemultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: IdentityRangemultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: SeppInfomultiplicity: 0..1isOrdered: N/AisUnique: NAdefaultValue: NoneisNullable: 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: Stringmultiplicity: 0..1isOrdered: N/AisUnique: NAdefaultValue: NoneisNullable: 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: 65535AllowedValues: N/A | type: Integermultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: PlmnIdmultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: PlmnIdNidmultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: ScpDomainInfomultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneallowedValues: N/AisNullable: 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: Stringmultiplicity: 0..1Ordered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: 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: Integermultiplicity: 1..\*isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: 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: Stringmultiplicity: 1..\* isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: 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: Ipv4Addrmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Ipv6Addrmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Ipv4AddressRangemultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Ipv6PrefixRangemultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Stringmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: PlmnIdmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: PlmnIdNidmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Enumerationmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Enumerationmultiplicity: 0..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Stringmultiplicity: 0..1isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| nwdafInfo | It represents specific data for the NWDAF.allowedValues: N/A | type: NwdafInfomultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: 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: Stringmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneallowedValues: N/AisNullable: 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: NwdafCapabilitymultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: 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: Integermultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: False |
| 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: NFTypemultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| 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: Stringmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| mlAnalyticsList | It represents ML Analytics Filter information supported by the Nnwdaf\_MLModelProvision service.allowedValues: N/A | type: MlAnalyticsInfomultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| analyticsAggregation | It indicates whether the NWDAF supports analytics aggregation:- true: analytics aggregation capability is supported by the NWDAF- false (default): analytics aggregation capability is not supported by the NWDAF. | type: Booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: False |
| analyticsMetadataProvisioning | It indicate whether the NWDAF supports analytics metadata provisioning:- true: analytics metadata provisioning capability is supported by the NWDAF- false (default): analytics metadata provisioning capability is not supported by the NWDAF. | type: Booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneallowedValues: N/AisNullable: 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 NWDAFEventsAnalytics 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: NwdafEventmultiplicity: \*isOrdered: TrueisUnique: TruedefaultValue: NoneisNullable: 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: Taimultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| nsacfInfo | This attribute represents the information of an NSACF NF Instance. (see TS 29.510 [23]). AllowedValues: N/A | type: NsacfInfomultiplicity: 0..1isOrdered: N/AisUnique: NAdefaultValue: NoneisNullable: False |
| nsacfCapability | It represents NSACF service capability.AllowedValues: N/A | type: NsacfCapabilitymultiplicity: 0..1isOrdered: N/AisUnique: NAdefaultValue: NoneisNullable: 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: Taimultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: TaiRangemultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Supportedfalse (default): Not Supported | type: Booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: “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: Supportedfalse (default): Not Supported | type: Booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: “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: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| appIds | It represents list of internal application identifiers of the managed PFDs.allowedValues: N/A | type: Stringmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| afIds | It represents list of application function identifiers of the managed PFDs.allowedValues: N/A | type: Stringmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: PfdDatamultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Stringmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: AfEventExposureDatamultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Stringmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Stringmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| unTrustAfInfoList | It represents list of information corresponding to the AFs.allowedValues: N/A | type: UnTrustAfInfomultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| UnTrustAfInfo.afId | It represents associated AF id.allowedValues: N/A | type: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| UnTrustAfInfo. sNssaiInfoList | It represents S-NSSAIs and DNNs supported by the untrust AF.allowedValues: N/A | type: SnssaiInfoItemmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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, FalseTrue: the AF supports mapping between UE IP address and UE ID;False (default): the AF does not support mapping between UE IP address and UE ID. | type: Booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: FalseisNullable: False |
| SnssaiInfoItem.sNssai | It represents supported S-NSSAI.allowedValues: N/A | type: ExtSnssaimultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| SnssaiInfoItem.dnnInfoList | It represents list of parameters supported by the NF per DNN.allowedValues: N/A | type: DnnInfoItemmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| snssaiExtension | It represents extensions to the Snssai.allowedValues: N/A | type: SnssaiExtensionmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: SdRangemultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: FalseisNullable: 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: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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 (default): UAS NF functionality is not supported by the NEF. | type: Booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: FalseisNullable: False |
| ausfInfo | It represents the information of an AUSF NF Instance (see TS 29.510 [23]). AllowedValues: N/A | type: AusfInfomultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: SupiRangemultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Stringmultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: SuciInfomultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| smsfInfo | This attribute represents specific data for a SMSF.AllowedValues: N/A | type: SmsfInfomultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: PlmnRangemultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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}$'AllowedValues: N/A | type: Stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| PlmnRange.end | This attribute indicates the last value identifying the end of a PLMN range.The string shall be encoded as follows:<MCC><MNC>Pattern: '^[0-9]{3}[0-9]{2,3}$'AllowedValues: N/A | type: Stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| udrInfo | This attribute represents the information of an UDR NF Instance (see TS 29.510 [23]). AllowedValues: N/A | type: UdrInfomultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| udmInfo | This attribute represents the information of an UDM NF Instance (see TS 29.510 [23]). AllowedValues: N/A | type: UdmInfomultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| lmfInfo | This attribute represents information of an LMF NF InstanceAllowedValues: N/A | type: LmfInfomultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: ENUMmultiplicity: 0..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| lmfId | This attribute represents the LMF identification. See clause 6.1.6.3.6 TS 29.572 [8]AllowedValues: N/A | type: Stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: ENUMmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: ENUMmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Stringmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: TAImultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: TAIRangemultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneallowedValues: N/AisNullable: 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.The allowedValues are: 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: ENUMmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| SnssaiInfoItem | This attribute represents a list of S-NSSAIs and DNNs supported by the trusted AF.AllowedValues: N/A | type: SnssaiInfoItemmultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Enumerationmultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Stringmultiplicity: 0..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Stringmultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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 (default): the trusted AF does not support mapping between UE IP address and UE ID.AllowedValues: TRUE, FALSE | type: Booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: FALSEisNullable: False |
| sNssaiEasdfInfoList | This attribute represents a list of parameters supported by the EASDF per S-NSSAI.AllowedValues: N/A | type: SnssaiEasdfInfoItemmultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| easdfN6IpAddressList | This attribute represents N6 IP addresses of the EASDF.AllowedValues: N/A | type: IpAddrmultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| upfN6IpAddressList | This attribute represents N6 IP addresses of PSA UPFs.AllowedValues: N/A | type: IpAddrmultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| SnssaiEasdfInfoItem.sNssai | This attribute represents a S-NSSAI.AllowedValues: N/A | type: SnssaiExtensionmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| SnssaiEasdfInfoItem.dnnEasdfInfoList | This attribute represents a list of parameters supported by the EASDF per DNN.AllowedValues: N/A | type: DnnEasdfInfoItemmultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| NssafInfo.supiRanges | This attribute represents a List of ranges of SUPIs that can be served by the NSSAAF instance.AllowedValues: N/A | type: SupiRangemultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: InternalGroupIdRangemultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: AttributeValuePairmultiplicity: 1..\*isOredred: FalseisUnique: TruedefaultValue: NoneisNullable: 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: AttributeValuePairmultiplicity: 1..\*isOredred: FalseisUnique: TruedefaultValue: NoneisNullable: 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: AttributeValuePairmultiplicity: 1..\*isOredred: FalseisUnique: TruedefaultValue: NoneisNullable: 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: AttributeValuePairmultiplicity: 1..\*isOredred: FalseisUnique: TruedefaultValue: NoneisNullable: 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: AttributeValuePairmultiplicity: 1..\*isOredred: FalseisUnique: TruedefaultValue: NoneisNullable: 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: AttributeValuePairmultiplicity: 1..\*isOredred: FalseisUnique: TruedefaultValue: NoneisNullable: 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: AttributeValuePairmultiplicity: 1..\*isOredred: FalseisUnique: TruedefaultValue: NoneisNullable: 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: AttributeValuePairmultiplicity: 1..\*isOredred: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| chfInfo | It represents the information of an AUSF NF Instance (see TS 29.510 [23]). AllowedValues: N/A | type: ChfInfomultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| ChfInfo.supiRangeList | This attribute represents the list of ranges of SUPIs that can be served by the CHF instance.allowedValues: N/A | type: SupiRangemultiplicity: 0..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| ChfInfo.gpsiRangeList | This attribute represents the list of ranges of GPSI that can be served by the CHF instance.allowedValues: N/A | type: IdentityRangemultiplicity: 0..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: PlmnRangemultiplicity: 0..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| mfafInfo | This attribute represents information of an MFAF NF Instance.AllowedValues: N/A | type: MfafInfomultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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 typeAllowedValues: N/A | type: NFTypemultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Stringmultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Taimultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: TaiRangemultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| dccfInfo | This attribute represents information of an DCCF NF InstanceAllowedValues: N/A | type: DccfInfomultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: NFTypemultiplicity: 0..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Stringmultiplicity: 0..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: TAImultiplicity: 0..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: TAIRangemultiplicity: 0..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| amfInfo | This attribute represents information of an AMF NF Instance.AllowedValues: N/A | type: AmfInfomultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| smfInfo | This attribute represents information of an SMF NF Instance. Multiple smfInfo should be allowed when one SMF instance serves multiple combinations of slice instances and TAs.AllowedValues: N/A | type: SmfInfomultiplicity: \*isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| upfInfo | This attribute represents information of an UPF NF Instance. Multiple upfInfo should be allow to define different TAI list for each supported S-NSSAI.AllowedValues: N/A | type: UpfInfomultiplicity: \*isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| pcfInfo | This attribute represents information of a PCF NF Instance. Multiple pcfInfo should be allowed to define different DNN list for each supiranges.AllowedValues: N/A | type: PcfInfomultiplicity: \*isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| nefInfo | This attribute represents information of an NEF NF Instance.AllowedValues: N/A | type: NefInfomultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| bsfInfo | This attribute represents information of a PCF NF Instance. Multiple bsfInfo should be allowed when BSF provides binding service for various combinations of IPv4 addresses and ipDomains.AllowedValues: N/A | type: BsfInfomultiplicity: \*isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: AttributeValuePairmultiplicity: 0..\*isOredred: FalseisUnique: TruedefaultValue: NoneisNullable: 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: AttributeValuePairmultiplicity: 0..\*isOredred: FalseisUnique: TruedefaultValue: NoneisNullable: 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: AttributeValuePairmultiplicity: 0..\*isOredred: FalseisUnique: TruedefaultValue: NoneisNullable: 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: AttributeValuePairmultiplicity: 0..\*isOredred: FalseisUnique: TruedefaultValue: NoneisNullable: 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: AttributeValuePairmultiplicity: 0..\*isOredred: FalseisUnique: TruedefaultValue: NoneisNullable: 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: AttributeValuePairmultiplicity: 0..\*isOredred: FalseisUnique: TruedefaultValue: NoneisNullable: 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: AttributeValuePairmultiplicity: 0..\*isOredred: FalseisUnique: TruedefaultValue: NoneisNullable: 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: AttributeValuePairmultiplicity: 0..\*isOredred: FalseisUnique: TruedefaultValue: NoneisNullable: 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: AttributeValuePairmultiplicity: 0..\*isOredred: FalseisUnique: TruedefaultValue: NoneisNullable: 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: AttributeValuePairmultiplicity: 0..\*isOredred: FalseisUnique: TruedefaultValue: NoneisNullable: 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: AttributeValuePairmultiplicity: 0..\*isOredred: FalseisUnique: TruedefaultValue: NoneisNullable: 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: AttributeValuePairmultiplicity: 0..\*isOredred: FalseisUnique: TruedefaultValue: NoneisNullable: 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: AttributeValuePairmultiplicity: 0..\*isOredred: FalseisUnique: TruedefaultValue: NoneisNullable: 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: AttributeValuePairmultiplicity: 0..\*isOredred: FalseisUnique: TruedefaultValue: NoneisNullable: 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: AttributeValuePairmultiplicity: 0..\*isOredred: FalseisUnique: TruedefaultValue: NoneisNullable: 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: AttributeValuePairmultiplicity: 0..\*isOredred: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| servedNwdafInfoList | 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 to which the map entry belongs to.AllowedValues: N/A | type: AttributeValuePairmultiplicity: 0..\*isOredred: FalseisUnique: TruedefaultValue: NoneisNullable: 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: AttributeValuePairmultiplicity: 0..\*isOredred: FalseisUnique: TruedefaultValue: NoneisNullable: 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: AttributeValuePairmultiplicity: 0..\*isOredred: FalseisUnique: TruedefaultValue: NoneisNullable: 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: AttributeValuePairmultiplicity: 0..\*isOredred: FalseisUnique: TruedefaultValue: NoneisNullable: 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: AttributeValuePairmultiplicity: 0..\*isOredred: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Stringmultiplicity: 0..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| aanfInfo | This attribute represents information of an AANF NF InstanceAllowedValues: N/A | type: AanfInfomultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| TsctsfInfo | This attribute represents information of an TSCTSF NF InstanceallowedValues: N/A | type: TsctsfInfomultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: SnssaiTsctsfInfoItemmultiplicity: 0..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: IdentityRangemultiplicity: 0..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| TsctsfInfo.supiRanges | This attribute represents the ranges of SUPIs that can be served by the TSCTSF instance.allowedValues: N/A | type: SupiRangemultiplicity: 0..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| TsctsfInfo.gpsiRanges | This attribute represents the ranges of GPSIs that can be served by the TSCTSF instance.allowedValues: N/A | type: IdentityRangemultiplicity: 0..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: InternalGroupIdRangemultiplicity: 0..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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..NisOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Stringmultiplicity: 0..NisOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| gmlcInfo | This attribute represents information of an GMLC NF Instance.AllowedValues: N/A | type: GmlcfInfomultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| nTNPLMNInfoList | This attribute defines the location restrictions per PLMN that relates to non-terrestrial network access. | type: NTNPLMNRestrictionsInfomultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| blockedLocationInfoList | This defines the information related with the location for which the access restrictions are to be applied in case of NTN. | type: BlockedLocationInfomultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| blockedLocation | This provides the geographical location at which the PLMN are not allowed in case of NTN. | type: stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| blockedDurWindow | This provides the time durations for which the PLMN are not allowed at a given location in case of NTN | type: TimeWindowmultiplicity: \*isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| blockedDurStartTime | This provides the start time starting which the PLMN is not allowed at a given location in case of NTN | type: DateTimeultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| blockedDurEndTime | This provides the end time after which the PLMN is not allowed at a given location in case of NTN | type: DateTimemultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| blockedSlice | This provides the slice for which the access is not allowed at a given location in case of NTN.  | type: Stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: ENUMmultiplicity: 0..1isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| satelliteCoverageInfoList | This attribute defines the information related to NR Satellite RAT type and corresponding information of satellite coverage | type: SatelliteCoverageInfomultiplicity: \*isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| nRSatelliteRATtype | This attribute defines the RAT Type for NR satellite access.Allowed Values:“NRLEO”“NRMEO”“NRGEO”“NROTHERSAT” | type: ENUMmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| locationInfo | This attribute defines the information about location and corresponding time windows for which the satellite coverage will be available or unavailable. | type: NtnLocationInfomultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| location | This defines the Location (geographical area) under consideration to which the satellite coverage info belongs | type: GeoAreamultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: FalseisUnique: TruedefaultValue: NoneisNullable: 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: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| N2InterfaceAmfInfo.ipv4EndpointAddresses | This attribute represents available AMF endpoint IPv4 address(es) for N2.AllowedValues: N/A | type: Ipv4Addrmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| N2InterfaceAmfInfo.ipv6EndpointAddresses | This attribute represents available AMF endpoint IPv6 address(es) for N2.AllowedValues: N/A | type: Ipv6Addrmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Fqdnmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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 (default): AMF does not support SNPN Onboarding;- TRUE: AMF supports SNPN Onboarding.AllowedValues: TRUE, FALSE | type: Booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: FALSEisNullable: 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: Booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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 (default): SMF does not support SNPN Onboarding;- TRUE: SMF supports SNPN Onboarding.AllowedValues: TRUE, FALSE | type: Booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: FALSEisNullable: 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 (default): SMF does not support UPRP;- TRUE: SMF supports UPRP.AllowedValues: TRUE, FALSE | type: Booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: FALSEisNullable: False |
| sNssaiUpfInfoList | This attribute represents a list of parameters supported by the UPF per S-NSSAI.AllowedValues: N/A | type: SnssaiUpfInfoItemmultiplicity: 1..NisOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| sxaInd | This attribute indicates whether the UPF is configured to support Sxa interface.TRUE: SupportedFALSE: Not SupportedAllowedValues: TRUE, FALSE | type: Booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| a2xSupportInd | This attribute indicates whether A2X Policy/Parameter provisioning is supported by the PCF.TRUE: SupportedFALSE (default): Not SupportedAllowedValues: TRUE, FALSE | type: Booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: FALSEisNullable: 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: A2xCapabilitymultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| rangingSlPosSupportInd | Indicates whether ranging and sidelink positioning capability is supported by the PCF.TRUE: SupportedFALSE (default): Not SupportedAllowedValues: TRUE, FALSE | type: Booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: FALSEisNullable: False |
| A2xCapability.lteA2x | This attribute indicates whether the PCF supports LTE A2X capability:- TRUE: LTE A2X capability is supported by the PCF- FALSE (default): LTE A2X capability is not supported by the PCF.AllowedValues: TRUE, FALSE | type: Booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: FALSEisNullable: False |
| A2xCapability.nrA2x | This attribute indicates whether the PCF supports NR A2X capability:- TRUE: NR A2X capability is supported by the PCF- FALSE (default): NR A2X capability is not supported by the PCF.AllowedValues: TRUE, FALSE | type: Booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: FALSEisNullable: 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 (default): Multi-member AF session with required QoS functionality is not supported by the NEF.AllowedValues: TRUE, FALSE | type: Booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: FALSEisNullable: 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 (default): member UE selection assistance functionality is not supported by the NEF.AllowedValues: TRUE, FALSE | type: Booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: FALSEisNullable: False |
| mbUpfInfo | This attribute represents information of an MB-UPF NF Instance.AllowedValues: N/A | type: MbUpfInfomultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| mbUpfInfo.sNssaiMbUpfInfoList | This attribute represents the list of parameters supported by the MB-UPF per S-NSSAI.allowedValues: N/A | type: SnssaiUpfInfoItemmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Stringmultiplicity: 0..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: InterfaceUpfInfoItemmultiplicity: 0..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Taimultiplicity: 0..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Tairangemultiplicity: 0..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Integermultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| SnssaiUpfInfoItem.sNssai | It represents supported S-NSSAI.allowedValues: N/A | type: ExtSnssaimultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| SnssaiUpfInfoItem.dnnUpfInfoList | This attribute represents a list of parameters supported by the UPF per DNN.allowedValues: N/A | type: DnnUpfInfoItemmultiplicity: 1..NisOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| SnssaiUpfInfoItem.redundantTransport | This attribute indicates whether the UPF supports redundant transport path on the transport layer in the corresponding network slice.allowedValues:TRUE: supportedFALSE (default): not supported | type: Booleanmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: FALSEisNullable: 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: Stringmultiplicity: 0..NisOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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..NisOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| DnnUpfInfoItem.ipv4AddressRanges | This attribute represents a list of ranges of IPv4 addresses handled by UPF. allowedValues: N/A | type: Ipv4AddressRangemultiplicity: 0..NisOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| DnnUpfInfoItem.ipv6PrefixRanges | This attribute represents a list of ranges of IPv6 prefixes handled by the UPF. allowedValues: N/A | type: Ipv6PrefixRangemultiplicity: 0..NisOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| DnnUpfInfoItem.natedIpv4AddressRanges | This attribute represents a list of ranges of NATed IPv4 addresses.allowedValues: N/A | type: Ipv4AddressRangemultiplicity: 0..NisOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| DnnUpfInfoItem.natedIpv6PrefixRanges | This attribute represents a list of ranges of NATed IPv6 prefixes.allowedValues: N/A | type: Ipv6PrefixRangemultiplicity: 0..NisOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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..NisOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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..NisOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Stringmultiplicity: 0..NisOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| mbSmfInfo | This attribute represents information of an MB-SMF NF InstanceAllowedValues: N/A | type: MbSmfInfomultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: NFTypemultiplicity: 0..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| MbSmfInfo.tmgiRangeList | This attribute represents the list of TMGI range(s) supported by the MB-SMFThe 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: TmgiRangemultiplicity: 0..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: TAImultiplicity: 0..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: TAIRangemultiplicity: 0..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| MbSmfInfo.mbsSessionList | This attribute represents the list of MBS sessions currently served by the MB-SMFThe 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: MbsSessionmultiplicity: 0..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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}$allowedValues: N/A | type: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| mbsServiceId | This attribute represents MBS Service ID consisting of a 6-digit fixed-length hexadecimal number between 000000 and FFFFFF.Each character in the string shall take a value of "0" to "9", "a" to "f" or "A" to "F" and shall represent 4 bits. The most significant character representing the 4 most significant bits of the MBS Service ID shall appear first in the string, and the character representing the 4 least significant bit of the MBS Service ID shall appear last in the string.Pattern: '^[A-Fa-f0-9]{6}$'allowedValues: N/A | type: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: IpAddrmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: IpAddrmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| MbsSession.mbsSessionId | This attribute represents the MBS Session Identifier.allowedValues: N/A | type: MbsSessionIdmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: MbsServiceAreaInfomultiplicity: 0..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| MbsServiceAreaInfo.areaSessionId | This attribute represents Area Session Identifier used for MBS session with location dependent content. allowedValues: 0..65535 | type: Integermultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| MbsServiceAreaInfo.mbsServiceArea | This attribute represents MBS Service Area for MBS session with location dependent content.allowedValues: N/A | type: MbsServiceAreamultiplicity: 0..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| MbsServiceArea.ncgiList | This attribute represents a list of NR cell ids with their pertaining TAIs.allowedValues: N/A | type: Ncgimultiplicity: 0..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| plmnId | This attribute represents a PLMN Identity.allowedValues: N/A | Type: PLMNId multiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: ImsiRangemultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: IdentityRangemultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: IdentityRangemultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: IdentityRangemultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: IdentityRangemultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| HssInfo.hssDiameterAddress | This attribute defines the Diameter Address of the HSSAllowedValues: N/A | type: NetworkNodeDiameterAddressmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| HssInfo.additionalDiamAddresses | This attribute defines the Additional Diameter Addresses of the HSS;may be present if hssDiameterAddress is presentAllowedValues: N/A | type: NetworkNodeDiameterAddressmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| ImsiRange.start | This attribute indicates the first value identifying the start of a IMSI range.Pattern: "^[0-9]+$"AllowedValues: N/A | type: Stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| ImsiRange.end | This attribute indicates the last value identifying the end of a IMSI range.Pattern: "^[0-9]+$"AllowedValues: N/A | type: Stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| mnpfInfo | This attribute represents information of an MNPF NF InstanceAllowedValues: N/A | type: MnpfInfomultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| MnpfInfo.msisdnRanges | This attribute represents the list of ranges of MSISDNs whose portability status is available in the MNPF.allowedValues: N/A | type: IdentityRangemultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| activationStatus | It describes the activation status.allowedValues: ACTIVATED, DEACTIVATED. | Type: Enummultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: None isNullable: False |
| TrustAfInfo.sNssaiInfoList | It represents S-NSSAIs and DNNs supported by the trust AF.allowedValues: N/A | type: SnssaiInfoItemmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| SnssaiTsctsfInfoItem.dnnInfoList | It represents list of parameters supported by the TSCTSF per DNN.allowedValues: N/A | type: DnnTsctsfInfoItemmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: stringmultiplicity: 0..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: ENUMmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Enumerationmultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| AMFFunction.sliceExpiryInfo | This provides information related to a network slice validity. | type: SliceExpiryInfomultiplicity: \*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: DateTimemultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: AttributeValuePairmultiplicity: 0..\*isOredred: FalseisUnique: TruedefaultValue: NoneisNullable: 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: AttributeValuePairmultiplicity: 0..\*isOredred: FalseisUnique: TruedefaultValue: NoneisNullable: 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: AttributeValuePairmultiplicity: 0..\*isOredred: FalseisUnique: TruedefaultValue: NoneisNullable: 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: stringmultiplicity: 0..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| gmFqdn | This attribute represents FQDN of the P-CSCF for the Gm interface.AllowedValues: N/A | type: stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| gmIpv4Addresses | This attribute represents list of IPv4 addresses of of the P-CSCF for the Gm interface.AllowedValues: N/A | type: Ipv4Addrmultiplicity: 0..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| gmIpv6Addresses | This attribute represents list of IPv6 addresses of of the P-CSCF for the Gm interface.AllowedValues: N/A | type: Ipv6Addrmultiplicity: 0..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| mwFqdn | This attribute represents FQDN of the P-CSCF for the Mw interface.AllowedValues: N/A | type: stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| mwIpv4Addresses | This attribute represents list of IPv4 addresses of of the P-CSCF for the Mw interface.AllowedValues: N/A | type: Ipv4Addrmultiplicity: 0..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: False |
| mwIpv6Addresses | This attribute represents list of IPv6 addresses of of the P-CSCF for the Mw interface.AllowedValues: N/A | type: Ipv6Addrmultiplicity: 0..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Ipv4AddressRangemultiplicity: 0..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Ipv6PrefixRangemultiplicity: 0..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: SatelliteBackhaulInfomultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: NTNGlobalRanNodeIDmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Enumerationmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| NTNGlobalRanNodeID.plmnId | This attribute represents a PLMN Identity.allowedValues: N/A | type: PLMNId multiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| NTNGlobalRanNodeID.gNbId | This represents the identifier of the gNB. (Ref. clause 8.2 of 3GPP TS 38.300 [3])AllowedValues: 0..4294967295 | type: Integermultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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: Stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| NTNGlobalRanNodeID.twifId | This represents the TWIF identification. (Ref. clause 9.3.1.153 of 3GPP TS 38.413 [11])AllowedValues: N/A | type: Stringmultiplicity: 0..1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: False |
| SMFFunction.dnaiSatelliteMappingList | It specifies the mapping relationship between satellite ID and at least one DNAI.AllowedValues: N/A | type: DnaiSatelliteMappingmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: stringmultiplicity: 1..\*isOrdered: FalseisUnique: TruedefaultValue: NoneisNullable: 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: Stringmultiplicity: 1isOrdered: N/AisUnique: N/AdefaultValue: NoneisNullable: 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. |

***End of Fifth change***