**3GPP TSG-SA5 Meeting #132eS5-204410**

**e-meeting, 17 - 28 August 2020**

|  |
| --- |
| *CR-Form-v11.4* |
| **CHANGE REQUEST** |
|  |
|  | **28.541** | **CR** | **0369** | **rev** | **-** | **Current version:** | **16.5.0** |  |
|  |
| *For* [***HELP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* |
|  |

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

|  |
| --- |
|  |
| ***Title:***  | add relation between transport and application level endpoints stage 3 |
|  |  |
| ***Source to WG:*** | Nokia, Nokia Shanghai Bell |
| ***Source to TSG:*** | S5 |
|  |  |
| ***Work item code:*** | TEI16 |  | ***Date:*** | 2020-08-20 |
|  |  |  |  |  |
| ***Category:*** | **F** |  | ***Release:*** | Rel-16 |
|  | *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-12 (Release 12)Rel-13 (Release 13)Rel-14 (Release 14)Rel-15 (Release 15)Rel-16 (Release 16)* |
|  |  |
| ***Reason for change:*** | To provide transport network (TN) topology requirements and individual TN QoS attributes requirements to the TN management system for a network slice, 3GPP management system needs to exchange TN related information between 3GPP management systems, as well as between 3GPP and TN management systems. E.g., RAN/CN management system needs to expose RAN/CN transport related information to E2E 3GPP management system, then E2E 3GPP management system could exchange this information with TN management system to enable TN management system configuring TN resources for the network slice. In current Network Resource Model (NRM), application level endpoints are defined for each RAN/CN network function, and transport level endpoints are defined for each RAN/CN network slice subnet. However, the relationship between application and transport level endpoints is not defined. Without this association, the TN controller doesn’t know which NF a transport endpoint is connected, and the RAN/CN management system doesn’t know where to route the traffic in transport layer. Also, the management system/administrator cannot depict end to end slice topology.  |
|  |  |
| ***Summary of change:*** | Add association between application and transport level endpoints. Refine nextHopInfo definition |
|  |  |
| ***Consequences if not approved:*** | 3GPP data traffic cannot be routed to related transport node, then reach to remote endpoint |
|  |  |
| ***Clauses affected:*** | D.4.3, G.4.3, J.4.3 |
|  |  |
|  | **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:*** |  |

|  |
| --- |
| **Start of 1st modification** |

## D.4.3 OpenAPI document "nrNrm.yaml"

openapi: 3.0.1

info:

 title: NR NRM

 version: 16.5.0

 description: >-

 OAS 3.0.1 specification of the NR NRM

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externalDocs:

 description: 3GPP TS 28.541 V16.5.0; 5G NRM, NR NRM

 url: http://www.3gpp.org/ftp/Specs/archive/28\_series/28.541/

paths: {}

components:

 schemas:

#-------- Definition of types-----------------------------------------------------

 GnbId:

 type: string

 GnbIdLength:

 type: integer

 minimum: 22

 maximum: 32

 GnbName:

 type: string

 maxLength: 150

 GnbDuId:

 type: number

 minimum: 0

 maximum: 68719476735

 GnbCuUpId:

 type: number

 minimum: 0

 maximum: 68719476735

 Sst:

 type: integer

 maximum: 255

 Snssai:

 type: object

 properties:

 sst:

 $ref: '#/components/schemas/Sst'

 sd:

 type: string

 SnssaiList:

 type: array

 items:

 $ref: '#/components/schemas/Snssai'

 Mnc:

 type: string

 pattern: '[0-9]{3}|[0-9]{2}'

 PlmnId:

 type: object

 properties:

 mcc:

 $ref: 'genericNrm.yaml#/components/schemas/Mcc'

 mnc:

 $ref: '#/components/schemas/Mnc'

 PlmnIdList:

 type: array

 items:

 $ref: '#/components/schemas/PlmnId'

 PlmnInfo:

 type: object

 properties:

 plmnId":

 $ref: '#/components/schemas/PlmnId'

 snssai:

 $ref: '#/components/schemas/Snssai'

 PlmnInfoList:

 type: array

 items:

 $ref: '#/components/schemas/PlmnInfo'

 GGnbIdList:

 type: array

 items: string
 pattern: '^[0-9]{3}[0-9]{2,3}-(22|23|24|25|26|27|28|29|30|31|32)-[0-9]{1,10}'

 GEnbIdList:

 type: array

 items: string
 pattern: '^[0-9]{3}[0-9]{2,3}-(18|20|21|22)-[0-9]{1,7}'

 NrPci:

 type: integer

 maximum: 503

 NrTac:

 type: integer

 maximum: 16777215

 Tai:

 type: object

 properties:

 plmnId:

 $ref: '#/components/schemas/PlmnId'

 nrTac:

 $ref: '#/components/schemas/NrTac'

 BackhaulAddress:

 type: object

 properties:

 gnbId:

 $ref: '#/components/schemas/GnbId'

 tai:

 $ref: "#/components/schemas/Tai"

 MappingSetIDBackhaulAddress:

 type: object

 properties:

 setID:

 type: integer

 backhaulAddress:

 $ref: '#/components/schemas/BackhaulAddress'

 IntraRatEsActivationOriginalCellLoadParameters:

 type: object

 properties:

 loadThreshold:

 type: integer

 timeDuration:

 type: integer

 IntraRatEsActivationCandidateCellsLoadParameters:

 type: object

 properties:

 loadThreshold:

 type: integer

 timeDuration:

 type: integer

 IntraRatEsDeactivationCandidateCellsLoadParameters:

 type: object

 properties:

 loadThreshold:

 type: integer

 timeDuration:

 type: integer

 EsNotAllowedTimePeriod:

 type: object

 properties:

 startTimeandendTime:

 type: string

 periodOfDay:

 type: string

 daysOfWeekList:

 type: string

 listoftimeperiods:

 type: string

 InterRatEsActivationOriginalCellParameters:

 type: object

 properties:

 loadThreshold:

 type: integer

 timeDuration:

 type: integer

 InterRatEsActivationCandidateCellParameters:

 type: object

 properties:

 loadThreshold:

 type: integer

 timeDuration:

 type: integer

 InterRatEsDeactivationCandidateCellParameters:

 type: object

 properties:

 loadThreshold:

 type: integer

 timeDuration:

 type: integer

 UeAccProbilityDistPerSSB:

 type: object

 properties:

 targetProbability:

 type: integer

 numberofpreamblessent:

 type: integer

 UeAccDelayProbilityDistPerSSB:

 type: object

 properties:

 targetProbability:

 type: integer

 accessdelay:

 type: integer

 NRPciList:

 type: object

 properties:

 NRPci:

 type: integer

 CSonPciList:

 type: object

 properties:

 NRPci:

 type: integer

 MaximumDeviationHoTrigger:

 type: integer

 minimum: -20

 maximum: 20

 MinimumTimeBetweenHoTriggerChange:

 type: integer

 minimum: 0

 maximum: 604800

 TstoreUEcntxt:

 type: integer

 minimum: 0

 maximum: 1023

 CellState:

 type: string

 enum:

 - IDLE

 - INACTIVE

 - ACTIVE

 CyclicPrefix:

 type: string

 enum:

 - '15'

 - '30'

 - '60'

 - '120'

 TxDirection:

 type: string

 enum:

 - DL

 - UL

 - DL and UL

 BwpContext:

 type: string

 enum:

 - DL

 - UL

 - SUL

 IsInitialBwp:

 type: string

 enum:

 - INITIAL

 - OTHER

 - SUL

 QuotaType:

 type: string

 enum:

 - STRICT

 - FLOAT

 IsESCoveredBy:

 type: string

 enum:

 - NO

 - PARTIAL

 - FULL

 RrmPolicyMember:

 type: object

 properties:

 plmnId:

 $ref: '#/components/schemas/PlmnId'

 snssai:

 $ref: '#/components/schemas/Snssai'

 RrmPolicyMemberList:

 type: array

 items:

 $ref: '#/components/schemas/RrmPolicyMember'

 LocalAddress:

 type: object

 properties:

 ipv4Address:

 $ref: 'genericNrm.yaml#/components/schemas/Ipv4Addr'

 ipv6Address:

 $ref: 'genericNrm.yaml#/components/schemas/Ipv6Addr'

 vlanId:

 type: integer

 minimum: 0

 maximum: 4096

 port:

 type: integer

 minimum: 0

 maximum: 65535

 RemoteAddress:

 type: object

 properties:

 ipv4Address:

 $ref: 'genericNrm.yaml#/components/schemas/Ipv4Addr'

 ipv6Address:

 $ref: 'genericNrm.yaml#/components/schemas/Ipv6Addr'

 CellIndividualOffset:

 type: object

 properties:

 rsrpOffsetSSB:

 type: integer

 rsrqOffsetSSB:

 type: integer

 sinrOffsetSSB:

 type: integer

 rsrpOffsetCSI-RS:

 type: integer

 rsrqOffsetCSI-RS:

 type: integer

 sinrOffsetCSI-RS:

 type: integer

 QOffsetRange:

 type: integer

 enum:

 - -24

 - -22

 - -20

 - -18

 - -16

 - -14

 - -12

 - -10

 - -8

 - -6

 - -5

 - -4

 - -3

 - -2

 - -1

 - 0

 - 24

 - 22

 - 20

 - 18

 - 16

 - 14

 - 12

 - 10

 - 8

 - 6

 - 5

 - 4

 - 3

 - 2

 - 1

 QOffsetRangeList:

 type: object

 properties:

 rsrpOffsetSSB:

 $ref: '#/components/schemas/QOffsetRange'

 rsrqOffsetSSB:

 $ref: '#/components/schemas/QOffsetRange'

 sinrOffsetSSB:

 $ref: '#/components/schemas/QOffsetRange'

 rsrpOffsetCSI-RS:

 $ref: '#/components/schemas/QOffsetRange'

 rsrqOffsetCSI-RS:

 $ref: '#/components/schemas/QOffsetRange'

 sinrOffsetCSI-RS:

 $ref: '#/components/schemas/QOffsetRange'

 QOffsetFreq:

 type: number

 TReselectionNRSf:

 type: integer

 enum:

 - 25

 - 50

 - 75

 - 100

 SsbPeriodicity:

 type: integer

 enum:

 - 5

 - 10

 - 20

 - 40

 - 80

 - 160

 SsbDuration:

 type: integer

 enum:

 - 1

 - 2

 - 3

 - 4

 - 5

 SsbSubCarrierSpacing:

 type: integer

 enum:

 - 15

 - 30

 - 120

 - 240

 CoverageShape:

 type: integer

 maximum: 65535

 DigitalTilt:

 type: integer

 minimum: -900

 maximum: 900

 DigitalAzimuth:

 type: integer

 minimum: -1800

 maximum: 1800

 RSSetId:

 type: integer

 maximum: 4194303

 RSSetType:

 type: string

 enum:

 - RS1

 - RS2

 FrequencyDomainPara:

 type: object

 properties:

 rimRSSubcarrierSpacing:

 type: integer

 rIMRSBandwidth:

 type: integer

 nrofGlobalRIMRSFrequencyCandidates:

 type: integer

 rimRSCommonCarrierReferencePoint:

 type: integer

 rimRSStartingFrequencyOffsetIdList:

 type: array

 items:

 type: integer

 SequenceDomainPara:

 type: object

 properties:

 nrofRIMRSSequenceCandidatesofRS1:

 type: integer

 rimRSScrambleIdListofRS1:

 type: array

 items:

 type: integer

 nrofRIMRSSequenceCandidatesofRS2:

 type: integer

 rimRSScrambleIdListofRS2:

 type: array

 items:

 type: integer

 enableEnoughNotEnoughIndication:

 type: string

 enum:

 - ENABLE

 - DISABLE

 RIMRSScrambleTimerMultiplier:

 type: integer

 RIMRSScrambleTimerOffset:

 type: integer

 TimeDomainPara:

 type: object

 properties:

 dlULSwitchingPeriod1:

 type: string

 enum:

 - MS0P5

 - MS0P625

 - MS1

 - MS1P25

 - MS2

 - MS2P5

 - MS3

 - MS4

 - MS5

 - MS10

 - MS20

 symbolOffsetOfReferencePoint1:

 type: integer

 dlULSwitchingPeriod2:

 type: string

 enum:

 - MS0P5

 - MS0P625

 - MS1

 - MS1P25

 - MS2

 - MS2P5

 - MS3

 - MS4

 - MS5

 - MS10

 - MS20

 symbolOffsetOfReferencePoint2:

 type: integer

 totalnrofSetIdofRS1:

 type: integer

 totalnrofSetIdofRS2:

 type: integer

 nrofConsecutiveRIMRS1:

 type: integer

 nrofConsecutiveRIMRS2:

 type: integer

 consecutiveRIMRS1List:

 type: array

 items:

 type: integer

 consecutiveRIMRS2List:

 type: array

 items:

 type: integer

 enablenearfarIndicationRS1:

 type: string

 enum:

 - ENABLE

 - DISABLE

 enablenearfarIndicationRS2:

 type: string

 enum:

 - ENABLE

 - DISABLE

 RimRSReportInfo:

 type: object

 properties:

 detectedSetID:

 type: integer

 propagationDelay:

 type: integer

 functionalityOfRIMRS:

 type: string

 enum:

 - RS1

 - RS2

 - RS1forEnoughMitigation

 - RS1forNotEnoughMitigation

 RimRSReportConf:

 type: object

 properties:

 reportIndicator:

 type: string

 enum:

 - ENABLE

 - DISABLE

 reportInterval:

 type: integer

 nrofRIMRSReportInfo:

 type: integer

 maxPropagationDelay:

 type: integer

 rimRSReportInfoList:

 type: array

 items:

 $ref: '#/components/schemas/RimRSReportInfo'

#-------- Definition of abstract IOCs --------------------------------------------

 RrmPolicy\_-Attr:

 type: object

 properties:

 resourceType:

 type: string

 rRMPolicyMemberList:

 $ref: '#/components/schemas/RrmPolicyMemberList'

#-------- Definition of concrete IOCs --------------------------------------------

 SubNetwork-Single:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 $ref: 'genericNrm.yaml#/components/schemas/SubNetwork-Attr'

 - $ref: 'genericNrm.yaml#/components/schemas/SubNetwork-ncO'

 - type: object

 properties:

 SubNetwork:

 $ref: '#/components/schemas/SubNetwork-Multiple'

 ManagedElement:

 $ref: '#/components/schemas/ManagedElement-Multiple'

 NRFrequency:

 $ref: '#/components/schemas/NRFrequency-Multiple'

 ExternalGnbCuCpFunction:

 $ref: '#/components/schemas/ExternalGnbCuCpFunction-Multiple'

 ExternalENBFunction:

 $ref: '#/components/schemas/ExternalENBFunction-Multiple'

 EUtranFrequency:

 $ref: '#/components/schemas/EUtranFrequency-Multiple'

 DESManagementFunction:

 $ref: '#/components/schemas/DESManagementFunction-Single'

 DRACHOptimizationFunction:

 $ref: '#/components/schemas/DRACHOptimizationFunction-Single'

 DMROFunction:

 $ref: '#/components/schemas/DMROFunction-Single'

 DPCIConfigurationFunction:

 $ref: '#/components/schemas/DPCIConfigurationFunction-Single'

 CPCIConfigurationFunction:

 $ref: '#/components/schemas/CPCIConfigurationFunction-Single'

 CESManagementFunction:

 $ref: '#/components/schemas/CESManagementFunction-Single'

 Configurable5QISet:

 $ref: '5gcNrm.yaml#/components/schemas/Configurable5QISet-Multiple'

 RimRSGlobal:

 $ref: '#/components/schemas/RimRSGlobal-Single'

 ManagedElement-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 $ref: 'genericNRM.yaml#/components/schemas/ManagedElement-Attr'

 - $ref: 'genericNRM.yaml#/components/schemas/ManagedElement-ncO'

 - type: object

 properties:

 GnbDuFunction:

 $ref: '#/components/schemas/GnbDuFunction-Multiple'

 GnbCuUpFunction:

 $ref: '#/components/schemas/GnbCuUpFunction-Multiple'

 GnbCuCpFunction:

 $ref: '#/components/schemas/GnbCuCpFunction-Multiple'

 DESManagementFunction:

 $ref: '#/components/schemas/DESManagementFunction-Single'

 DRACHOptimizationFunction:

 $ref: '#/components/schemas/DRACHOptimizationFunction-Single'

 DMROFunction:

 $ref: '#/components/schemas/DMROFunction-Single'

 DPCIConfigurationFunction:

 $ref: '#/components/schemas/DPCIConfigurationFunction-Single'

 CPCIConfigurationFunction:

 $ref: '#/components/schemas/CPCIConfigurationFunction-Single'

 CESManagementFunction:

 $ref: '#/components/schemas/CESManagementFunction-Single'

 Configurable5QISet:

 $ref: '5gcNrm.yaml#/components/schemas/Configurable5QISet-Multiple'

 GnbDuFunction-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 gnbDuId:

 $ref: '#/components/schemas/GnbDuId'

 gnbDuName:

 $ref: '#/components/schemas/GnbName'

 gnbId:

 $ref: '#/components/schemas/GnbId'

 gnbIdLength:

 $ref: '#/components/schemas/GnbIdLength'

 rimRSReportConf:

 $ref: '#/components/schemas/RimRSReportConf'

 - $ref: 'genericNRM.yaml#/components/schemas/ManagedFunction-ncO'

 - type: object

 properties:

 RRMPolicyRatio:

 $ref: '#/components/schemas/RRMPolicyRatio-Multiple'

 NrCellDu:

 $ref: '#/components/schemas/NrCellDu-Multiple'

 Bwp-Multiple:

 $ref: '#/components/schemas/Bwp-Multiple'

 NrSectorCarrier-Multiple:

 $ref: '#/components/schemas/NrSectorCarrier-Multiple'

 EP\_F1C:

 $ref: '#/components/schemas/EP\_F1C-Single'

 EP\_F1U:

 $ref: '#/components/schemas/EP\_F1U-Multiple'

 GnbCuUpFunction-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 gnbId:

 $ref: '#/components/schemas/GnbId'

 gnbIdLength:

 $ref: '#/components/schemas/GnbIdLength'

 gnbCuUpId:

 $ref: '#/components/schemas/GnbCuUpId'

 plmnInfoList:

 $ref: '#/components/schemas/PlmnInfoList'

 configurable5QISetRef:

 $ref: 'genericNRM.yaml#/components/schemas/Dn'

 - $ref: 'genericNRM.yaml#/components/schemas/ManagedFunction-ncO'

 - type: object

 properties:

 RRMPolicyRatio:

 $ref: '#/components/schemas/RRMPolicyRatio-Multiple'

 EP\_E1:

 $ref: '#/components/schemas/EP\_E1-Single'

 EP\_XnU:

 $ref: '#/components/schemas/EP\_XnU-Multiple'

 EP\_F1U:

 $ref: '#/components/schemas/EP\_F1U-Multiple'

 EP\_NgU:

 $ref: '#/components/schemas/EP\_NgU-Multiple'

 EP\_X2U:

 $ref: '#/components/schemas/EP\_X2U-Multiple'

 EP\_S1U:

 $ref: '#/components/schemas/EP\_S1U-Multiple'

 GnbCuCpFunction-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 gnbId:

 $ref: '#/components/schemas/GnbId'

 gnbIdLength:

 $ref: '#/components/schemas/GnbIdLength'

 gnbCuName:

 $ref: '#/components/schemas/GnbName'

 plmnId:

 $ref: '#/components/schemas/PlmnId'

 x2BlackList:

 $ref: '#/components/schemas/GGnbIdList'

 xnBlackList:

 $ref: '#/components/schemas/GGnbIdList'

 x2WhiteList:

 $ref: '#/components/schemas/GGnbIdList'

 xnWhiteList:

 $ref: '#/components/schemas/GGnbIdList '

 xnHOBlackList:

 $ref: '#/components/schemas/GGnbIdList '

 x2HOBlackList:

 $ref: '#/components/schemas/GEnbIdList'

 mappingSetIDBackhaulAddress:

 $ref: '#/components/schemas/MappingSetIDBackhaulAddress'

 configurable5QISetRef:

 $ref: 'genericNRM.yaml#/components/schemas/Dn'

 - $ref: 'genericNRM.yaml#/components/schemas/ManagedFunction-ncO'

 - type: object

 properties:

 RRMPolicyRatio:

 $ref: '#/components/schemas/RRMPolicyRatio-Multiple'

 NrCellCu:

 $ref: '#/components/schemas/NrCellCu-Multiple'

 EP\_XnC:

 $ref: '#/components/schemas/EP\_XnC-Multiple'

 EP\_E1:

 $ref: '#/components/schemas/EP\_E1-Multiple'

 EP\_F1C:

 $ref: '#/components/schemas/EP\_F1C-Multiple'

 EP\_NgC:

 $ref: '#/components/schemas/EP\_NgC-Multiple'

 EP\_X2C:

 $ref: '#/components/schemas/EP\_X2C-Multiple'

 DANRManagementFunction:

 $ref: '#/components/schemas/DANRManagementFunction-Single'

 DESManagementFunction:

 $ref: '#/components/schemas/DESManagementFunction-Single'

 DRACHOptimizationFunction:

 $ref: '#/components/schemas/DRACHOptimizationFunction-Single'

 DMROFunction:

 $ref: '#/components/schemas/DMROFunction-Single'

 NrCellCu-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 cellLocalId:

 type: integer

 plmnInfoList:

 $ref: '#/components/schemas/PlmnInfoList'

 nRFrequencyRef:

 $ref: 'genericNRM.yaml#/components/schemas/Dn'

 - $ref: 'genericNRM.yaml#/components/schemas/ManagedFunction-ncO'

 - type: object

 properties:

 RRMPolicyRatio:

 $ref: '#/components/schemas/RRMPolicyRatio-Multiple'

 NRCellRelation:

 $ref: '#/components/schemas/NRCellRelation-Multiple'

 EUtranCellRelation:

 $ref: '#/components/schemas/EUtranCellRelation-Multiple'

 NRFreqRelation:

 $ref: '#/components/schemas/NRFreqRelation-Multiple'

 EUtranFreqRelation:

 $ref: '#/components/schemas/EUtranFreqRelation-Multiple'

 DESManagementFunction:

 $ref: '#/components/schemas/DESManagementFunction-Single'

 DRACHOptimizationFunction:

 $ref: '#/components/schemas/DRACHOptimizationFunction-Single'

 DMROFunction:

 $ref: '#/components/schemas/DMROFunction-Single'

 CESManagementFunction:

 $ref: '#/components/schemas/CESManagementFunction-Single'

 NrCellDu-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 administrativeState:

 $ref: 'genericNRM.yaml#/components/schemas/AdministrativeState'

 operationalState:

 $ref: 'genericNRM.yaml#/components/schemas/OperationalState'

 cellLocalId:

 type: integer

 cellState:

 $ref: '#/components/schemas/CellState'

 plmnInfoList:

 $ref: '#/components/schemas/PlmnInfoList'

 nrPci:

 $ref: '#/components/schemas/NrPci'

 nrTac:

 $ref: '#/components/schemas/NrTac'

 arfcnDL:

 type: integer

 arfcnUL:

 type: integer

 arfcnSUL:

 type: integer

 bSChannelBwDL:

 type: integer

 bSChannelBwUL:

 type: integer

 bSChannelBwSUL:

 type: integer

 ssbFrequency:

 type: integer

 minimum: 0

 maximum: 3279165

 ssbPeriodicity:

 $ref: '#/components/schemas/SsbPeriodicity'

 ssbSubCarrierSpacing:

 $ref: '#/components/schemas/SsbSubCarrierSpacing'

 ssbOffset:

 type: integer

 minimum: 0

 maximum: 159

 ssbDuration:

 $ref: '#/components/schemas/SsbDuration'

 nrSectorCarrierRef:

 type: array

 items:

 $ref: 'genericNRM.yaml#/components/schemas/Dn'

 bwpRef:

 type: array

 items:

 $ref: 'genericNRM.yaml#/components/schemas/Dn'

 nRFrequencyRef:

 $ref: 'genericNRM.yaml#/components/schemas/Dn'

 victimSetRef:

 $ref: 'genericNRM.yaml#/components/schemas/Dn'

 aggressorSetRef:

 $ref: 'genericNRM.yaml#/components/schemas/Dn'

 - $ref: 'genericNRM.yaml#/components/schemas/ManagedFunction-ncO'

 - type: object

 properties:

 RRMPolicyRatio:

 $ref: '#/components/schemas/RRMPolicyRatio-Multiple'

 DPCIConfigurationFunction:

 $ref: '#/components/schemas/DPCIConfigurationFunction-Single'

 CPCIConfigurationFunction:

 $ref: '#/components/schemas/CPCIConfigurationFunction-Single'

 NRFrequency-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 absoluteFrequencySSB:

 type: integer

 minimum: 0

 maximum: 3279165

 ssbSubCarrierSpacing:

 $ref: '#/components/schemas/SsbSubCarrierSpacing'

 multiFrequencyBandListNR:

 type: integer

 minimum: 1

 maximum: 256

 - $ref: 'genericNRM.yaml#/components/schemas/ManagedFunction-ncO'

 EUtranFrequency-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 $ref: 'genericNRM.yaml#/components/schemas/ManagedFunction-Attr'

 - $ref: 'genericNRM.yaml#/components/schemas/ManagedFunction-ncO'

 NrSectorCarrier-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 txDirection:

 $ref: '#/components/schemas/TxDirection'

 configuredMaxTxPower:

 type: integer

 arfcnDL:

 type: integer

 arfcnUL:

 type: integer

 bSChannelBwDL:

 type: integer

 bSChannelBwUL:

 type: integer

 sectorEquipmentFunctionRef:

 $ref: 'genericNRM.yaml#/components/schemas/Dn'

 - $ref: 'genericNRM.yaml#/components/schemas/ManagedFunction-ncO'

 - type: object

 properties:

 CommonBeamformingFunction:

 $ref: '#/components/schemas/CommonBeamformingFunction-Single'

 Bwp-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 bwpContext:

 $ref: '#/components/schemas/BwpContext'

 isInitialBwp:

 $ref: '#/components/schemas/IsInitialBwp'

 subCarrierSpacing:

 type: integer

 cyclicPrefix:

 $ref: '#/components/schemas/CyclicPrefix'

 startRB:

 type: integer

 numberOfRBs:

 type: integer

 - $ref: 'genericNRM.yaml#/components/schemas/ManagedFunction-ncO'

 CommonBeamformingFunction-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - type: object

 properties:

 coverageShape:

 $ref: '#/components/schemas/CoverageShape'

 digitalAzimuth:

 $ref: '#/components/schemas/DigitalAzimuth'

 digitalTilt:

 $ref: '#/components/schemas/DigitalTilt'

 - type: object

 properties:

 Beam:

 $ref: '#/components/schemas/Beam-Multiple'

 Beam-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - type: object

 properties:

 beamIndex:

 type: integer

 beamType:

 type: string

 enum:

 - SSB-BEAM

 beamAzimuth:

 type: integer

 minimum: -1800

 maximum: 1800

 beamTilt:

 type: integer

 minimum: -900

 maximum: 900

 beamHorizWidth:

 type: integer

 minimum: 0

 maximum: 3599

 beamVertWidth:

 type: integer

 minimum: 0

 maximum: 1800

 RRMPolicyRatio-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: '#/components/schemas/RrmPolicy\_-Attr'

 - type: object

 properties:

 rRMPolicyMaxRatio:

 type: integer

 rRMPolicyMinRatio:

 type: integer

 rRMPolicyDedicatedRatio:

 type: integer

 NRCellRelation-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 type: object

 properties:

 nRTCI:

 type: integer

 cellIndividualOffset:

 $ref: '#/components/schemas/CellIndividualOffset'

 adjacentNRCellRef:

 $ref: 'genericNRM.yaml#/components/schemas/Dn'

 nRFrequencyRef:

 $ref: 'genericNRM.yaml#/components/schemas/Dn'

 isRemoveAllowed:

 type: boolean

 isHOAllowed:

 type: boolean

 isESCoveredBy:

 $ref: '#/components/schemas/IsESCoveredBy'

 isENDCAllowed:

 type: boolean

 EUtranCellRelation-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 adjacentEUtranCellRef:

 $ref: 'genericNRM.yaml#/components/schemas/Dn'

 - $ref: 'genericNRM.yaml#/components/schemas/ManagedFunction-ncO'

 NRFreqRelation-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 type: object

 properties:

 offsetMO:

 $ref: '#/components/schemas/QOffsetRangeList'

 blackListEntry:

 type: array

 items:

 type: integer

 minimum: 0

 maximum: 1007

 blackListEntryIdleMode:

 type: integer

 cellReselectionPriority:

 type: integer

 cellReselectionSubPriority:

 type: number

 minimum: 0.2

 maximum: 0.8

 multipleOf: 0.2

 pMax:

 type: integer

 minimum: -30

 maximum: 33

 qOffsetFreq:

 $ref: '#/components/schemas/QOffsetFreq'

 qQualMin:

 type: number

 qRxLevMin:

 type: integer

 minimum: -140

 maximum: -44

 threshXHighP:

 type: integer

 minimum: 0

 maximum: 62

 threshXHighQ:

 type: integer

 minimum: 0

 maximum: 31

 threshXLowP:

 type: integer

 minimum: 0

 maximum: 62

 threshXLowQ:

 type: integer

 minimum: 0

 maximum: 31

 tReselectionNr:

 type: integer

 minimum: 0

 maximum: 7

 tReselectionNRSfHigh:

 $ref: '#/components/schemas/TReselectionNRSf'

 tReselectionNRSfMedium:

 $ref: '#/components/schemas/TReselectionNRSf'

 nRFrequencyRef:

 $ref: 'genericNRM.yaml#/components/schemas/Dn'

 EUtranFreqRelation-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 eUTranFrequencyRef:

 $ref: 'genericNRM.yaml#/components/schemas/Dn'

 - $ref: 'genericNRM.yaml#/components/schemas/ManagedFunction-ncO'

 DANRManagementFunction-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 type: object

 properties:

 intrasystemANRManagementSwitch:

 type: boolean

 intersystemANRManagementSwitch:

 type: boolean

 DESManagementFunction-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 type: object

 properties:

 desSwitch:

 type: boolean

 intraRatEsActivationOriginalCellLoadParameters:

 $ref: "#/components/schemas/IntraRatEsActivationOriginalCellLoadParameters"

 intraRatEsActivationCandidateCellsLoadParameters:

 $ref: "#/components/schemas/IntraRatEsActivationCandidateCellsLoadParameters"

 intraRatEsDeactivationCandidateCellsLoadParameters:

 $ref: "#/components/schemas/IntraRatEsDeactivationCandidateCellsLoadParameters"

 esNotAllowedTimePeriod:

 $ref: "#/components/schemas/EsNotAllowedTimePeriod"

 interRatEsActivationOriginalCellParameters:

 $ref: "#/components/schemas/IntraRatEsActivationOriginalCellLoadParameters"

 interRatEsActivationCandidateCellParameters:

 $ref: "#/components/schemas/IntraRatEsActivationOriginalCellLoadParameters"

 interRatEsDeactivationCandidateCellParameters:

 $ref: "#/components/schemas/IntraRatEsActivationOriginalCellLoadParameters"

 isProbingCapable:

 type: string

 enum:

 - yes

 - no

 energySavingState:

 type: string

 enum:

 - isNotEnergySaving

 - isEnergySaving

 DRACHOptimizationFunction-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 type: object

 properties:

 drachOptimizationControl:

 type: boolean

 ueAccProbilityDistPerSSB:

 $ref: "#/components/schemas/UeAccProbilityDistPerSSB"

 ueAccDelayProbilityDistPerSSB:

 $ref: "#/components/schemas/UeAccDelayProbilityDistPerSSB"

 - $ref: 'genericNRM.yaml#/components/schemas/ManagedFunction-ncO'

 DMROFunction-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 type: object

 properties:

 dmroControl:

 type: boolean

 maximumDeviationHoTrigger:

 $ref: '#/components/schemas/MaximumDeviationHoTrigger'

 minimumTimeBetweenHoTriggerChange:

 $ref: '#/components/schemas/MinimumTimeBetweenHoTriggerChange'

 tstoreUEcntxt:

 $ref: '#/components/schemas/TstoreUEcntxt'

 DPCIConfigurationFunction-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 type: object

 properties:

 dPciConfigurationControl:

 type: boolean

 nRPciList:

 $ref: "#/components/schemas/NRPciList"

 CPCIConfigurationFunction-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 type: object

 properties:

 cPciConfigurationControl:

 type: boolean

 cSonPciList:

 $ref: "#/components/schemas/CSonPciList"

 CESManagementFunction-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 type: object

 properties:

 cesSwitch:

 type: boolean

 energySavingControl:

 type: string

 enum:

 - toBeEnergySaving

 - toBeNotEnergySaving

 energySavingState:

 type: string

 enum:

 - isNotEnergySaving

 - isEnergySaving

 RimRSGlobal-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 type: object

 properties:

 frequencyDomainPara:

 $ref: '#/components/schemas/FrequencyDomainPara'

 sequenceDomainPara:

 $ref: '#/components/schemas/SequenceDomainPara'

 timeDomainPara:

 $ref: '#/components/schemas/TimeDomainPara'

 RimRSSet:

 $ref: '#/components/schemas/RimRSSet-Multiple'

 RimRSSet-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 type: object

 properties:

 setId:

 $ref: '#/components/schemas/RSSetId'

 setType:

 $ref: '#/components/schemas/RSSetType'

 rimRSMonitoringStartTime:

 type: string

 rimRSMonitoringStopTime:

 type: string

 rimRSMonitoringWindowDuration:

 type: integer

 rimRSMonitoringWindowStartingOffset:

 type: integer

 rimRSMonitoringWindowPeriodicity:

 type: integer

 rimRSMonitoringOccasionInterval:

 type: integer

 rimRSMonitoringOccasionStartingOffset:

 type: integer

 nRCellDURefs:

 $ref: 'genericNRM.yaml#/components/schemas/DnList'

 ExternalGnbDuFunction-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 gnbId:

 $ref: '#/components/schemas/GnbId'

 gnbIdLength:

 $ref: '#/components/schemas/GnbIdLength'

 - $ref: 'genericNRM.yaml#/components/schemas/ManagedFunction-ncO'

 - type: object

 properties:

 EP\_F1C:

 $ref: '#/components/schemas/EP\_F1C-Multiple'

 EP\_F1U:

 $ref: '#/components/schemas/EP\_F1U-Multiple'

 ExternalGnbCuUpFunction-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 gnbId:

 $ref: '#/components/schemas/GnbId'

 gnbIdLength:

 $ref: '#/components/schemas/GnbIdLength'

 - $ref: 'genericNRM.yaml#/components/schemas/ManagedFunction-ncO'

 - type: object

 properties:

 EP\_E1:

 $ref: '#/components/schemas/EP\_E1-Multiple'

 EP\_F1U:

 $ref: '#/components/schemas/EP\_F1U-Multiple'

 EP\_XnU:

 $ref: '#/components/schemas/EP\_XnU-Multiple'

 ExternalGnbCuCpFunction-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: >-

 genericNRM.yaml#/components/schemas/ManagedFunction-Attr

 - type: object

 properties:

 gnbId:

 $ref: '#/components/schemas/GnbId'

 gnbIdLength:

 $ref: '#/components/schemas/GnbIdLength'

 plmnId:

 $ref: '#/components/schemas/PlmnId'

 - $ref: 'genericNRM.yaml#/components/schemas/ManagedFunction-ncO'

 - type: object

 properties:

 ExternalNrCellCu:

 $ref: '#/components/schemas/ExternalNrCellCu-Multiple'

 EP\_XnC:

 $ref: '#/components/schemas/EP\_XnC-Multiple'

 EP\_E1:

 $ref: '#/components/schemas/EP\_E1-Multiple'

 EP\_F1C:

 $ref: '#/components/schemas/EP\_F1C-Multiple'

 ExternalNrCellCu-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 cellLocalId:

 type: integer

 nrPci:

 $ref: '#/components/schemas/NrPci'

 plmnIdList:

 $ref: '#/components/schemas/PlmnIdList'

 nRFrequencyRef:

 $ref: 'genericNRM.yaml#/components/schemas/Dn'

 - $ref: 'genericNRM.yaml#/components/schemas/ManagedFunction-ncO'

 ExternalENBFunction-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 eNBId:

 type: integer

 - $ref: 'genericNRM.yaml#/components/schemas/ManagedFunction-ncO'

 - type: object

 properties:

 ExternalEUTranCell:

 $ref: '#/components/schemas/ExternalEUTranCell-Multiple'

 ExternalEUTranCell-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 EUtranFrequencyRef:

 $ref: 'genericNRM.yaml#/components/schemas/Dn'

 - $ref: 'genericNRM.yaml#/components/schemas/ManagedFunction-ncO'

 EP\_XnC-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 localAddress:

 $ref: '#/components/schemas/LocalAddress'

 remoteAddress:

 $ref: '#/components/schemas/RemoteAddress'

 EP\_E1-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 localAddress:

 $ref: '#/components/schemas/LocalAddress'

 remoteAddress:

 $ref: '#/components/schemas/RemoteAddress'

 EP\_F1C-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 localAddress:

 $ref: '#/components/schemas/LocalAddress'

 remoteAddress:

 $ref: '#/components/schemas/RemoteAddress'

 EP\_NgC-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 localAddress:

 $ref: '#/components/schemas/LocalAddress'

 remoteAddress:

 $ref: '#/components/schemas/RemoteAddress'

 EP\_X2C-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 localAddress:

 $ref: '#/components/schemas/LocalAddress'

 remoteAddress:

 $ref: '#/components/schemas/RemoteAddress'

 EP\_XnU-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 localAddress:

 $ref: '#/components/schemas/LocalAddress'

 remoteAddress:

 $ref: '#/components/schemas/RemoteAddress'

 EP\_F1U-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 localAddress:

 $ref: '#/components/schemas/LocalAddress'

 remoteAddress:

 $ref: '#/components/schemas/RemoteAddress'

 EP\_NgU-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 localAddress:

 $ref: '#/components/schemas/LocalAddress'

 remoteAddress:

 $ref: '#/components/schemas/RemoteAddress'

 epTransportRefs:

 $ref: 'genericNrm.yaml#/components/schemas/DnList'

 EP\_X2U-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 localAddress:

 $ref: '#/components/schemas/LocalAddress'

 remoteAddress:

 $ref: '#/components/schemas/RemoteAddress'

 EP\_S1U-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 localAddress:

 $ref: '#/components/schemas/LocalAddress'

 remoteAddress:

 $ref: '#/components/schemas/RemoteAddress'

#-------- Definition of JSON arrays for name-contained IOCs ----------------------

 SubNetwork-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/SubNetwork-Single'

 ManagedElement-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/ManagedElement-Single'

 GnbDuFunction-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/GnbDuFunction-Single'

 GnbCuUpFunction-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/GnbCuUpFunction-Single'

 GnbCuCpFunction-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/GnbCuCpFunction-Single'

 NrCellDu-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/NrCellDu-Single'

 NrCellCu-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/NrCellCu-Single'

 NRFrequency-Multiple:

 type: array

 minItems: 1

 items:

 $ref: '#/components/schemas/NRFrequency-Single'

 EUtranFrequency-Multiple:

 type: array

 minItems: 1

 items:

 $ref: '#/components/schemas/EUtranFrequency-Single'

 NrSectorCarrier-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/NrSectorCarrier-Single'

 Bwp-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/Bwp-Single'

 Beam-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/Beam-Single'

 RRMPolicyRatio-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/RRMPolicyRatio-Single'

 NRCellRelation-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/NRCellRelation-Single'

 EUtranCellRelation-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EUtranCellRelation-Single'

 NRFreqRelation-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/NRFreqRelation-Single'

 EUtranFreqRelation-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EUtranFreqRelation-Single'

 RimRSSet-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/RimRSSet-Single'

 ExternalGnbDuFunction-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/ExternalGnbDuFunction-Single'

 ExternalGnbCuUpFunction-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/ExternalGnbCuUpFunction-Single'

 ExternalGnbCuCpFunction-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/ExternalGnbCuCpFunction-Single'

 ExternalNrCellCu-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/ExternalNrCellCu-Single'

 ExternalENBFunction-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/ExternalENBFunction-Single'

 ExternalEUTranCell-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/ExternalEUTranCell-Single'

 EP\_E1-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_E1-Single'

 EP\_XnC-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_XnC-Single'

 EP\_F1C-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_F1C-Single'

 EP\_NgC-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_NgC-Single'

 EP\_X2C-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_X2C-Single'

 EP\_XnU-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_XnU-Single'

 EP\_F1U-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_F1U-Single'

 EP\_NgU-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_NgU-Single'

 EP\_X2U-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_X2U-Single'

 EP\_S1U-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_S1U-Single'

#-------- Definitions in TS 28.541 for TS 28.532 ---------------------------------

 resources-nrNrm:

 oneOf:

 - $ref: '#/components/schemas/SubNetwork-Single'

 - $ref: '#/components/schemas/ManagedElement-Single'

 - $ref: '#/components/schemas/GnbDuFunction-Single'

 - $ref: '#/components/schemas/GnbCuUpFunction-Single'

 - $ref: '#/components/schemas/GnbCuCpFunction-Single'

 - $ref: '#/components/schemas/NrCellCu-Single'

 - $ref: '#/components/schemas/NrCellDu-Single'

 - $ref: '#/components/schemas/NRFrequency-Single'

 - $ref: '#/components/schemas/EUtranFrequency-Single'

 - $ref: '#/components/schemas/NrSectorCarrier-Single'

 - $ref: '#/components/schemas/Bwp-Single'

 - $ref: '#/components/schemas/CommonBeamformingFunction-Single'

 - $ref: '#/components/schemas/Beam-Single'

 - $ref: '#/components/schemas/RRMPolicyRatio-Single'

 - $ref: '#/components/schemas/NRCellRelation-Single'

 - $ref: '#/components/schemas/EUtranCellRelation-Single'

 - $ref: '#/components/schemas/NRFreqRelation-Single'

 - $ref: '#/components/schemas/EUtranFreqRelation-Single'

 - $ref: '#/components/schemas/DANRManagementFunction-Single'

 - $ref: '#/components/schemas/DESManagementFunction-Single'

 - $ref: '#/components/schemas/DRACHOptimizationFunction-Single'

 - $ref: '#/components/schemas/DMROFunction-Single'

 - $ref: '#/components/schemas/DPCIConfigurationFunction-Single'

 - $ref: '#/components/schemas/CPCIConfigurationFunction-Single'

 - $ref: '#/components/schemas/CESManagementFunction-Single'

 - $ref: '#/components/schemas/RimRSGlobal-Single'

 - $ref: '#/components/schemas/RimRSSet-Single'

 - $ref: '#/components/schemas/ExternalGnbDuFunction-Single'

 - $ref: '#/components/schemas/ExternalGnbCuUpFunction-Single'

 - $ref: '#/components/schemas/ExternalGnbCuCpFunction-Single'

 - $ref: '#/components/schemas/ExternalNrCellCu-Single'

 - $ref: '#/components/schemas/ExternalENBFunction-Single'

 - $ref: '#/components/schemas/ExternalEUTranCell-Single'

 - $ref: '#/components/schemas/EP\_XnC-Single'

 - $ref: '#/components/schemas/EP\_E1-Single'

 - $ref: '#/components/schemas/EP\_F1C-Single'

 - $ref: '#/components/schemas/EP\_NgC-Single'

 - $ref: '#/components/schemas/EP\_X2C-Single'

 - $ref: '#/components/schemas/EP\_XnU-Single'

 - $ref: '#/components/schemas/EP\_F1U-Single'

 - $ref: '#/components/schemas/EP\_NgU-Single'

 - $ref: '#/components/schemas/EP\_X2U-Single'

 - $ref: '#/components/schemas/EP\_S1U-Single'

|  |
| --- |
| **End of 1st modification** |

|  |
| --- |
| **Start of 2nd modification** |

## G.4.3 OpenAPI document "5gcNrm.yaml"

openapi: 3.0.1

info:

 title: 3GPP 5GC NRM

 version: 16.5.0

 description: >-

 OAS 3.0.1 specification of the 5GC NRM

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externalDocs:

 description: 3GPP TS 28.541 V16.4.0; 5G NRM, 5GC NRM

 url: http://www.3gpp.org/ftp/Specs/archive/28\_series/28.541/

paths: {}

components:

 schemas:

#-------- Definition of types-----------------------------------------------------

 AmfIdentifier:

 type: object

 description: 'AmfIdentifier comprise of amfRegionId, amfSetId and amfPointer'

 properties:

 amfRegionId:

 $ref: '#/components/schemas/AmfRegionId'

 amfSetId:

 $ref: '#/components/schemas/AmfSetId'

 amfPointer:

 $ref: '#/components/schemas/AmfPointer'

 AmfRegionId:

 type: integer

 description: AmfRegionId is defined in TS 23.003

 maximum: 255

 AmfSetId:

 type: string

 description: AmfSetId is defined in TS 23.003

 maximum: 1023

 AmfPointer:

 type: integer

 description: AmfPointer is defined in TS 23.003

 maximum: 63

 IpEndPoint:

 type: object

 properties:

 ipv4Address:

 $ref: 'genericNrm.yaml#/components/schemas/Ipv4Addr'

 ipv6Address:

 $ref: 'genericNrm.yaml#/components/schemas/Ipv6Addr'

 ipv6Prefix:

 $ref: 'genericNrm.yaml#/components/schemas/Ipv6Prefix'

 transport:

 $ref: 'genericNrm.yaml#/components/schemas/TransportProtocol'

 port:

 type: integer

 NFProfileList:

 type: array

 description: List of NF profile

 items:

 $ref: '#/components/schemas/NFProfile'

 NFProfile:

 type: object

 description: 'NF profile stored in NRF, defined in TS 29.510'

 properties:

 nFInstanceId:

 type: string

 description: uuid of NF instance

 nFType:

 $ref: 'genericNrm.yaml#/components/schemas/NFType'

 nFStatus:

 $ref: '#/components/schemas/NFStatus'

 plmn:

 $ref: 'nrNrm.yaml#/components/schemas/PlmnId'

 sNssais:

 $ref: 'nrNrm.yaml#/components/schemas/Snssai'

 fqdn:

 $ref: 'genericNrm.yaml#/components/schemas/Fqdn'

 interPlmnFqdn:

 $ref: 'genericNrm.yaml#/components/schemas/Fqdn'

 nfServices:

 type: array

 items:

 $ref: '#/components/schemas/NFService'

 NFService:

 type: object

 description: NF Service is defined in TS 29.510

 properties:

 serviceInstanceId:

 type: string

 serviceName:

 type: string

 version:

 type: string

 schema:

 type: string

 fqdn:

 $ref: 'genericNrm.yaml#/components/schemas/Fqdn'

 interPlmnFqdn:

 $ref: 'genericNrm.yaml#/components/schemas/Fqdn'

 ipEndPoints:

 type: array

 items:

 $ref: '#/components/schemas/IpEndPoint'

 apiPrfix:

 type: string

 allowedPlmns:

 $ref: 'nrNrm.yaml#/components/schemas/PlmnId'

 allowedNfTypes:

 type: array

 items:

 $ref: 'genericNrm.yaml#/components/schemas/NFType'

 allowedNssais:

 type: array

 items:

 $ref: 'nrNrm.yaml#/components/schemas/Snssai'

 NFStatus:

 type: string

 description: any of enumrated value

 enum:

 - REGISTERED

 - SUSPENDED

 CNSIIdList:

 type: array

 items:

 $ref: '#/components/schemas/CNSIId'

 CNSIId:

 type: string

 description: CNSI Id is defined in TS 29.531, only for Core Network

 TACList:

 type: array

 items:

 $ref: 'nrNrm.yaml#/components/schemas/NrTac'

 WeightFactor:

 type: integer

 UdmInfo:

 type: object

 properties:

 nFSrvGroupId:

 type: string

 AusfInfo:

 type: object

 properties:

 nFSrvGroupId:

 type: string

 UpfInfo:

 type: object

 properties:

 smfServingAreas:

 type: string

 AmfInfo:

 type: object

 properties:

 priority:

 type: integer

 SupportedDataSetId:

 type: string

 description: any of enumrated value

 enum:

 - SUBSCRIPTION

 - POLICY

 - EXPOSURE

 - APPLICATION

 Udrinfo:

 type: object

 properties:

 supportedDataSetIds:

 type: array

 items:

 $ref: '#/components/schemas/SupportedDataSetId'

 nFSrvGroupId:

 type: string

 NFInfo:

 oneOf:

 - $ref: '#/components/schemas/UdmInfo'

 - $ref: '#/components/schemas/AusfInfo'

 - $ref: '#/components/schemas/UpfInfo'

 - $ref: '#/components/schemas/AmfInfo'

 - $ref: '#/components/schemas/Udrinfo'

 ManagedNFProfile:

 type: object

 properties:

 nfInstanceID:

 type: string

 nfType:

 $ref: 'genericNrm.yaml#/components/schemas/NFType'

 authzInfo:

 type: string

 hostAddr:

 $ref: 'genericNrm.yaml#/components/schemas/HostAddr'

 locality:

 type: string

 nFInfo:

 $ref: '#/components/schemas/NFInfo'

 capacity:

 type: integer

 SEPPType:

 type: string

 description: any of enumrated value

 enum:

 - CSEPP

 - PSEPP

 SupportedFunc:

 type: object

 properties:

 function:

 type: string

 policy:

 type: string

 SupportedFuncList:

 type: array

 items:

 $ref: '#/components/schemas/SupportedFunc'

 CommModelType:

 type: string

 description: any of enumrated value

 enum:

 - DIRECT\_COMMUNICATION\_WO\_NRF

 - DIRECT\_COMMUNICATION\_WITH\_NRF

 - INDIRECT\_COMMUNICATION\_WO\_DEDICATED\_DISCOVERY

 - INDIRECT\_COMMUNICATION\_WITH\_DEDICATED\_DISCOVERY

 CommModel:

 type: object

 properties:

 groupId:

 type: integer

 commModelType:

 $ref: '#/components/schemas/CommModelType'

 targetNFServiceList:

 $ref: 'genericNrm.yaml#/components/schemas/DnList'

 commModelConfiguration:

 type: string

 CommModelList:

 type: array

 items:

 $ref: '#/components/schemas/CommModel'

 CapabilityList:

 type: array

 items:

 type: string

 FiveQiDscpMapping:

 type: object

 properties:

 fiveQIValues:

 type: array

 items:

 type: integer

 dscp:

 type: integer

 PacketErrorRate:

 type: object

 properties:

 scalar:

 type: integer

 exponent:

 type: integer

 FiveQICharacteristics:

 type: object

 properties:

 fiveQIValue:

 type: integer

 resourceType:

 type: string

 enum:

 - GBR

 - NonGBR

 priorityLevel:

 type: integer

 packetDelayBudget:

 type: integer

 packetErrorRate:

 $ref: '#/components/schemas/PacketErrorRate'

 averagingWindow:

 type: integer

 maximumDataBurstVolume:

 type: integer

 GtpUPathDelayThresholdsType:

 type: object

 properties:

 n3AveragePacketDelayThreshold:

 type: integer

 n3MinPacketDelayThreshold:

 type: integer

 n3MaxPacketDelayThreshold:

 type: integer

 n9AveragePacketDelayThreshold:

 type: integer

 n9MinPacketDelayThreshold:

 type: integer

 n9MaxPacketDelayThreshold:

 type: integer

 QFPacketDelayThresholdsType:

 type: object

 properties:

 thresholdDl:

 type: integer

 thresholdUl:

 type: integer

 thresholdRtt:

 type: integer

#-------- Definition of concrete IOCs --------------------------------------------

 SubNetwork-Single:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/SubNetwork-Attr'

 - $ref: 'genericNrm.yaml#/components/schemas/SubNetwork-ncO'

 - type: object

 properties:

 SubNetwork:

 $ref: '#/components/schemas/SubNetwork-Multiple'

 ManagedElement:

 $ref: '#/components/schemas/ManagedElement-Multiple'

 ExternalAmfFunction:

 $ref: '#/components/schemas/ExternalAmfFunction-Multiple'

 ExternalNrfFunction:

 $ref: '#/components/schemas/ExternalNrfFunction-Multiple'

 ExternalNssfFunction:

 $ref: '#/components/schemas/ExternalNssfFunction-Multiple'

 AmfSet:

 $ref: '#/components/schemas/AmfSet-Multiple'

 AmfRegion:

 $ref: '#/components/schemas/AmfRegion-Multiple'

 Configurable5QISet:

 $ref: '#/components/schemas/Configurable5QISet-Multiple'

 ManagedElement-Single:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedElement-Attr'

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedElement-ncO'

 - type: object

 properties:

 AmfFunction:

 $ref: '#/components/schemas/AmfFunction-Multiple'

 SmfFunction:

 $ref: '#/components/schemas/SmfFunction-Multiple'

 UpfFunction:

 $ref: '#/components/schemas/UpfFunction-Multiple'

 N3iwfFunction:

 $ref: '#/components/schemas/N3iwfFunction-Multiple'

 PcfFunction:

 $ref: '#/components/schemas/PcfFunction-Multiple'

 AusfFunction:

 $ref: '#/components/schemas/AusfFunction-Multiple'

 UdmFunction:

 $ref: '#/components/schemas/UdmFunction-Multiple'

 UdrFunction:

 $ref: '#/components/schemas/UdrFunction-Multiple'

 UdsfFunction:

 $ref: '#/components/schemas/UdsfFunction-Multiple'

 NrfFunction:

 $ref: '#/components/schemas/NrfFunction-Multiple'

 NssfFunction:

 $ref: '#/components/schemas/NssfFunction-Multiple'

 SmsfFunction:

 $ref: '#/components/schemas/SmsfFunction-Multiple'

 LmfFunction:

 $ref: '#/components/schemas/LmfFunction-Multiple'

 NgeirFunction:

 $ref: '#/components/schemas/NgeirFunction-Multiple'

 SeppFunction:

 $ref: '#/components/schemas/SeppFunction-Multiple'

 NwdafFunction:

 $ref: '#/components/schemas/NwdafFunction-Multiple'

 ScpFunction:

 $ref: '#/components/schemas/ScpFunction-Multiple'

 NefFunction:

 $ref: '#/components/schemas/NefFunction-Multiple'

 Configurable5QISet:

 $ref: '#/components/schemas/Configurable5QISet-Multiple'

 AmfFunction-Single:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 plmnIdList:

 $ref: 'nrNrm.yaml#/components/schemas/PlmnIdList'

 amfIdentifier:

 $ref: '#/components/schemas/AmfIdentifier'

 sBIFqdn:

 type: string

 weightFactor:

 $ref: '#/components/schemas/WeightFactor'

 snssaiList:

 $ref: 'nrNrm.yaml#/components/schemas/SnssaiList'

 amfSet:

 $ref: 'genericNrm.yaml#/components/schemas/Dn'

 managedNFProfile:

 $ref: '#/components/schemas/ManagedNFProfile'

 commModelList:

 $ref: '#/components/schemas/CommModelList'

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-ncO'

 - type: object

 properties:

 EP\_N2:

 $ref: '#/components/schemas/EP\_N2-Multiple'

 EP\_N8:

 $ref: '#/components/schemas/EP\_N8-Multiple'

 EP\_N11:

 $ref: '#/components/schemas/EP\_N11-Multiple'

 EP\_N12:

 $ref: '#/components/schemas/EP\_N12-Multiple'

 EP\_N14:

 $ref: '#/components/schemas/EP\_N14-Multiple'

 EP\_N15:

 $ref: '#/components/schemas/EP\_N15-Multiple'

 EP\_N17:

 $ref: '#/components/schemas/EP\_N17-Multiple'

 EP\_N20:

 $ref: '#/components/schemas/EP\_N20-Multiple'

 EP\_N22:

 $ref: '#/components/schemas/EP\_N22-Multiple'

 EP\_N26:

 $ref: '#/components/schemas/EP\_N26-Multiple'

 EP\_NLS:

 $ref: '#/components/schemas/EP\_NLS-Multiple'

 EP\_NLG:

 $ref: '#/components/schemas/EP\_NLG-Multiple'

 AmfSet-Single:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 plmnIdList:

 $ref: 'nrNrm.yaml#/components/schemas/PlmnIdList'

 nRTACList:

 $ref: '#/components/schemas/TACList'

 amfSetId:

 $ref: '#/components/schemas/AmfSetId'

 snssaiList:

 $ref: 'nrNrm.yaml#/components/schemas/SnssaiList'

 AmfRegion-Single:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 plmnIdList:

 $ref: 'nrNrm.yaml#/components/schemas/PlmnIdList'

 nRTACList:

 $ref: '#/components/schemas/TACList'

 amfRegionId:

 $ref: '#/components/schemas/AmfRegionId'

 snssaiList:

 $ref: 'nrNrm.yaml#/components/schemas/SnssaiList'

 SmfFunction-Single:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 plmnIdList:

 $ref: 'nrNrm.yaml#/components/schemas/PlmnIdList'

 nRTACList:

 $ref: '#/components/schemas/TACList'

 sBIFqdn:

 type: string

 snssaiList:

 $ref: 'nrNrm.yaml#/components/schemas/SnssaiList'

 managedNFProfile:

 $ref: '#/components/schemas/ManagedNFProfile'

 commModelList:

 $ref: '#/components/schemas/CommModelList'

 Configurable5QISetRef:

 $ref: 'genericNRM.yaml#/components/schemas/Dn'

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-ncO'

 - type: object

 properties:

 EP\_N4:

 $ref: '#/components/schemas/EP\_N4-Multiple'

 EP\_N7:

 $ref: '#/components/schemas/EP\_N7-Multiple'

 EP\_N10:

 $ref: '#/components/schemas/EP\_N10-Multiple'

 EP\_N11:

 $ref: '#/components/schemas/EP\_N11-Multiple'

 EP\_N16:

 $ref: '#/components/schemas/EP\_N16-Multiple'

 EP\_S5C:

 $ref: '#/components/schemas/EP\_S5C-Multiple'

 FiveQiDscpMappingSet:

 $ref: '#/components/schemas/FiveQiDscpMappingSet-Single'

 GtpUPathQoSMonitoringControl:

 $ref: '#/components/schemas/GtpUPathQoSMonitoringControl-Single'

 QFQoSMonitoringControl:

 $ref: '#/components/schemas/QFQoSMonitoringControl-Single'

 UpfFunction-Single:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 plmnIdList:

 $ref: 'nrNrm.yaml#/components/schemas/PlmnIdList'

 nRTACList:

 $ref: '#/components/schemas/TACList'

 snssaiList:

 $ref: 'nrNrm.yaml#/components/schemas/SnssaiList'

 managedNFProfile:

 $ref: '#/components/schemas/ManagedNFProfile'

 commModelList:

 $ref: '#/components/schemas/CommModelList'

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-ncO'

 - type: object

 properties:

 EP\_N3:

 $ref: '#/components/schemas/EP\_N3-Multiple'

 EP\_N4:

 $ref: '#/components/schemas/EP\_N4-Multiple'

 EP\_N6:

 $ref: '#/components/schemas/EP\_N6-Multiple'

 EP\_N9:

 $ref: '#/components/schemas/EP\_N9-Multiple'

 EP\_S5U:

 $ref: '#/components/schemas/EP\_S5U-Multiple'

 N3iwfFunction-Single:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 plmnIdList:

 $ref: 'nrNrm.yaml#/components/schemas/PlmnIdList'

 commModelList:

 $ref: '#/components/schemas/CommModelList'

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-ncO'

 - type: object

 properties:

 EP\_N3:

 $ref: '#/components/schemas/EP\_N3-Multiple'

 EP\_N4:

 $ref: '#/components/schemas/EP\_N4-Multiple'

 PcfFunction-Single:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 plmnIdList:

 $ref: 'nrNrm.yaml#/components/schemas/PlmnIdList'

 sBIFqdn:

 type: string

 snssaiList:

 $ref: 'nrNrm.yaml#/components/schemas/SnssaiList'

 managedNFProfile:

 $ref: '#/components/schemas/ManagedNFProfile'

 commModelList:

 $ref: '#/components/schemas/CommModelList'

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-ncO'

 - type: object

 properties:

 EP\_N5:

 $ref: '#/components/schemas/EP\_N5-Multiple'

 EP\_N7:

 $ref: '#/components/schemas/EP\_N7-Multiple'

 EP\_N15:

 $ref: '#/components/schemas/EP\_N15-Multiple'

 EP\_N16:

 $ref: '#/components/schemas/EP\_N16-Multiple'

 EP\_Rx:

 $ref: '#/components/schemas/EP\_Rx-Multiple'

 AusfFunction-Single:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 plmnIdList:

 $ref: 'nrNrm.yaml#/components/schemas/PlmnIdList'

 sBIFqdn:

 type: string

 snssaiList:

 $ref: 'nrNrm.yaml#/components/schemas/SnssaiList'

 managedNFProfile:

 $ref: '#/components/schemas/ManagedNFProfile'

 commModelList:

 $ref: '#/components/schemas/CommModelList'

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-ncO'

 - type: object

 properties:

 EP\_N12:

 $ref: '#/components/schemas/EP\_N12-Multiple'

 EP\_N13:

 $ref: '#/components/schemas/EP\_N13-Multiple'

 UdmFunction-Single:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 plmnIdList:

 $ref: 'nrNrm.yaml#/components/schemas/PlmnIdList'

 sBIFqdn:

 type: string

 snssaiList:

 $ref: 'nrNrm.yaml#/components/schemas/SnssaiList'

 managedNFProfile:

 $ref: '#/components/schemas/ManagedNFProfile'

 commModelList:

 $ref: '#/components/schemas/CommModelList'

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-ncO'

 - type: object

 properties:

 EP\_N8:

 $ref: '#/components/schemas/EP\_N8-Multiple'

 EP\_N10:

 $ref: '#/components/schemas/EP\_N10-Multiple'

 EP\_N13:

 $ref: '#/components/schemas/EP\_N13-Multiple'

 UdrFunction-Single:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 plmnIdList:

 $ref: 'nrNrm.yaml#/components/schemas/PlmnIdList'

 sBIFqdn:

 type: string

 snssaiList:

 $ref: 'nrNrm.yaml#/components/schemas/SnssaiList'

 managedNFProfile:

 $ref: '#/components/schemas/ManagedNFProfile'

 UdsfFunction-Single:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 plmnIdList:

 $ref: 'nrNrm.yaml#/components/schemas/PlmnIdList'

 sBIFqdn:

 type: string

 snssaiList:

 $ref: 'nrNrm.yaml#/components/schemas/SnssaiList'

 managedNFProfile:

 $ref: '#/components/schemas/ManagedNFProfile'

 NrfFunction-Single:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 plmnIdList:

 $ref: 'nrNrm.yaml#/components/schemas/PlmnIdList'

 sBIFqdn:

 type: string

 cNSIIdList:

 $ref: '#/components/schemas/CNSIIdList'

 nFProfileList:

 $ref: '#/components/schemas/NFProfileList'

 snssaiList:

 $ref: 'nrNrm.yaml#/components/schemas/SnssaiList'

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-ncO'

 - type: object

 properties:

 EP\_N27:

 $ref: '#/components/schemas/EP\_N27-Multiple'

 NssfFunction-Single:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 plmnIdList:

 $ref: 'nrNrm.yaml#/components/schemas/PlmnIdList'

 sBIFqdn:

 type: string

 cNSIIdList:

 $ref: '#/components/schemas/CNSIIdList'

 nFProfileList:

 $ref: '#/components/schemas/NFProfileList'

 snssaiList:

 $ref: 'nrNrm.yaml#/components/schemas/SnssaiList'

 commModelList:

 $ref: '#/components/schemas/CommModelList'

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-ncO'

 - type: object

 properties:

 EP\_N22:

 $ref: '#/components/schemas/EP\_N22-Multiple'

 EP\_N31:

 $ref: '#/components/schemas/EP\_N31-Multiple'

 SmsfFunction-Single:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 plmnIdList:

 $ref: 'nrNrm.yaml#/components/schemas/PlmnIdList'

 sBIFqdn:

 type: string

 managedNFProfile:

 $ref: '#/components/schemas/ManagedNFProfile'

 commModelList:

 $ref: '#/components/schemas/CommModelList'

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-ncO'

 - type: object

 properties:

 EP\_N20:

 $ref: '#/components/schemas/EP\_N20-Multiple'

 EP\_N21:

 $ref: '#/components/schemas/EP\_N21-Multiple'

 EP\_MAP\_SMSC:

 $ref: '#/components/schemas/EP\_MAP\_SMSC-Multiple'

 LmfFunction-Single:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 plmnIdList:

 $ref: 'nrNrm.yaml#/components/schemas/PlmnIdList'

 managedNFProfile:

 $ref: '#/components/schemas/ManagedNFProfile'

 commModelList:

 $ref: '#/components/schemas/CommModelList'

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-ncO'

 - type: object

 properties:

 EP\_NLS:

 $ref: '#/components/schemas/EP\_NLS-Multiple'

 NgeirFunction-Single:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 plmnIdList:

 $ref: 'nrNrm.yaml#/components/schemas/PlmnIdList'

 sBIFqdn:

 type: string

 snssaiList:

 $ref: 'nrNrm.yaml#/components/schemas/SnssaiList'

 managedNFProfile:

 $ref: '#/components/schemas/ManagedNFProfile'

 commModelList:

 $ref: '#/components/schemas/CommModelList'

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-ncO'

 - type: object

 properties:

 EP\_N17:

 $ref: '#/components/schemas/EP\_N17-Multiple'

 SeppFunction-Single:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 plmnId:

 $ref: 'nrNrm.yaml#/components/schemas/PlmnId'

 sEPPType:

 $ref: '#/components/schemas/SEPPType'

 sEPPId:

 type: integer

 fqdn:

 $ref: 'genericNrm.yaml#/components/schemas/Fqdn'

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-ncO'

 - type: object

 properties:

 EP\_N32:

 $ref: '#/components/schemas/EP\_N32-Multiple'

 NwdafFunction-Single:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 plmnIdList:

 $ref: 'nrNrm.yaml#/components/schemas/PlmnIdList'

 sBIFqdn:

 type: string

 snssaiList:

 $ref: 'nrNrm.yaml#/components/schemas/SnssaiList'

 managedNFProfile:

 $ref: '#/components/schemas/ManagedNFProfile'

 commModelList:

 $ref: '#/components/schemas/CommModelList'

 ScpFunction-Single:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 supportedFuncList:

 $ref: '#/components/schemas/SupportedFuncList'

 address:

 $ref: 'genericNrm.yaml#/components/schemas/HostAddr'

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-ncO'

 NefFunction-Single:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 sBIFqdn:

 type: string

 snssaiList:

 $ref: 'nrNrm.yaml#/components/schemas/SnssaiList'

 managedNFProfile:

 $ref: '#/components/schemas/ManagedNFProfile'

 capabilityList:

 $ref: '#/components/schemas/CapabilityList'

 isINEF:

 type: boolean

 isCAPIFSup:

 type: boolean

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-ncO'

 ExternalAmfFunction-Single:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 plmnIdList:

 $ref: 'nrNrm.yaml#/components/schemas/PlmnIdList'

 amfIdentifier:

 $ref: '#/components/schemas/AmfIdentifier'

 ExternalNrfFunction-Single:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 plmnIdList:

 $ref: 'nrNrm.yaml#/components/schemas/PlmnIdList'

 ExternalNssfFunction-Single:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 plmnIdList:

 $ref: 'nrNrm.yaml#/components/schemas/PlmnIdList'

 ExternalSeppFunction-Single:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/ManagedFunction-Attr'

 - type: object

 properties:

 plmnId:

 $ref: 'nrNrm.yaml#/components/schemas/PlmnId'

 sEPPId:

 type: integer

 fqdn:

 $ref: 'genericNrm.yaml#/components/schemas/Fqdn'

 EP\_N2-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 localAddress:

 $ref: 'nrNrm.yaml#/components/schemas/LocalAddress'

 remoteAddress:

 $ref: 'nrNrm.yaml#/components/schemas/RemoteAddress'

 EP\_N3-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 localAddress:

 $ref: 'nrNrm.yaml#/components/schemas/LocalAddress'

 remoteAddress:

 $ref: 'nrNrm.yaml#/components/schemas/RemoteAddress'

 epTransportRefs:

 $ref: 'genericNrm.yaml#/components/schemas/DnList'

 EP\_N4-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 localAddress:

 $ref: 'nrNrm.yaml#/components/schemas/LocalAddress'

 remoteAddress:

 $ref: 'nrNrm.yaml#/components/schemas/RemoteAddress'

 EP\_N5-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 localAddress:

 $ref: 'nrNrm.yaml#/components/schemas/LocalAddress'

 remoteAddress:

 $ref: 'nrNrm.yaml#/components/schemas/RemoteAddress'

 EP\_N6-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 localAddress:

 $ref: 'nrNrm.yaml#/components/schemas/LocalAddress'

 remoteAddress:

 $ref: 'nrNrm.yaml#/components/schemas/RemoteAddress'

 EP\_N7-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 localAddress:

 $ref: 'nrNrm.yaml#/components/schemas/LocalAddress'

 remoteAddress:

 $ref: 'nrNrm.yaml#/components/schemas/RemoteAddress'

 EP\_N8-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 localAddress:

 $ref: 'nrNrm.yaml#/components/schemas/LocalAddress'

 remoteAddress:

 $ref: 'nrNrm.yaml#/components/schemas/RemoteAddress'

 EP\_N9-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 localAddress:

 $ref: 'nrNrm.yaml#/components/schemas/LocalAddress'

 remoteAddress:

 $ref: 'nrNrm.yaml#/components/schemas/RemoteAddress'

 EP\_N10-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 localAddress:

 $ref: 'nrNrm.yaml#/components/schemas/LocalAddress'

 remoteAddress:

 $ref: 'nrNrm.yaml#/components/schemas/RemoteAddress'

 EP\_N11-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 localAddress:

 $ref: 'nrNrm.yaml#/components/schemas/LocalAddress'

 remoteAddress:

 $ref: 'nrNrm.yaml#/components/schemas/RemoteAddress'

 EP\_N12-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 localAddress:

 $ref: 'nrNrm.yaml#/components/schemas/LocalAddress'

 remoteAddress:

 $ref: 'nrNrm.yaml#/components/schemas/RemoteAddress'

 EP\_N13-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 localAddress:

 $ref: 'nrNrm.yaml#/components/schemas/LocalAddress'

 remoteAddress:

 $ref: 'nrNrm.yaml#/components/schemas/RemoteAddress'

 EP\_N14-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 localAddress:

 $ref: 'nrNrm.yaml#/components/schemas/LocalAddress'

 remoteAddress:

 $ref: 'nrNrm.yaml#/components/schemas/RemoteAddress'

 EP\_N15-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 localAddress:

 $ref: 'nrNrm.yaml#/components/schemas/LocalAddress'

 remoteAddress:

 $ref: 'nrNrm.yaml#/components/schemas/RemoteAddress'

 EP\_N16-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 localAddress:

 $ref: 'nrNrm.yaml#/components/schemas/LocalAddress'

 remoteAddress:

 $ref: 'nrNrm.yaml#/components/schemas/RemoteAddress'

 EP\_N17-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 localAddress:

 $ref: 'nrNrm.yaml#/components/schemas/LocalAddress'

 remoteAddress:

 $ref: 'nrNrm.yaml#/components/schemas/RemoteAddress'

 EP\_N20-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 localAddress:

 $ref: 'nrNrm.yaml#/components/schemas/LocalAddress'

 remoteAddress:

 $ref: 'nrNrm.yaml#/components/schemas/RemoteAddress'

 EP\_N21-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 localAddress:

 $ref: 'nrNrm.yaml#/components/schemas/LocalAddress'

 remoteAddress:

 $ref: 'nrNrm.yaml#/components/schemas/RemoteAddress'

 EP\_N22-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 localAddress:

 $ref: 'nrNrm.yaml#/components/schemas/LocalAddress'

 remoteAddress:

 $ref: 'nrNrm.yaml#/components/schemas/RemoteAddress'

 EP\_N26-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 localAddress:

 $ref: 'nrNrm.yaml#/components/schemas/LocalAddress'

 remoteAddress:

 $ref: 'nrNrm.yaml#/components/schemas/RemoteAddress'

 EP\_N27-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 localAddress:

 $ref: 'nrNrm.yaml#/components/schemas/LocalAddress'

 remoteAddress:

 $ref: 'nrNrm.yaml#/components/schemas/RemoteAddress'

 EP\_N31-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 localAddress:

 $ref: 'nrNrm.yaml#/components/schemas/LocalAddress'

 remoteAddress:

 $ref: 'nrNrm.yaml#/components/schemas/RemoteAddress'

 EP\_N32-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 remotePlmnId:

 $ref: 'nrNrm.yaml#/components/schemas/PlmnId'

 remoteSeppAddress:

 $ref: 'genericNrm.yaml#/components/schemas/HostAddr'

 remoteSeppId:

 type: integer

 n32cParas:

 type: string

 n32fPolicy:

 type: string

 withIPX:

 type: boolean

 EP\_S5C-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 localAddress:

 $ref: 'nrNrm.yaml#/components/schemas/LocalAddress'

 remoteAddress:

 $ref: 'nrNrm.yaml#/components/schemas/RemoteAddress'

 EP\_S5U-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 localAddress:

 $ref: 'nrNrm.yaml#/components/schemas/LocalAddress'

 remoteAddress:

 $ref: 'nrNrm.yaml#/components/schemas/RemoteAddress'

 EP\_Rx-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 localAddress:

 $ref: 'nrNrm.yaml#/components/schemas/LocalAddress'

 remoteAddress:

 $ref: 'nrNrm.yaml#/components/schemas/RemoteAddress'

 EP\_MAP\_SMSC-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 localAddress:

 $ref: 'nrNrm.yaml#/components/schemas/LocalAddress'

 remoteAddress:

 $ref: 'nrNrm.yaml#/components/schemas/RemoteAddress'

 EP\_NLS-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 localAddress:

 $ref: 'nrNrm.yaml#/components/schemas/LocalAddress'

 remoteAddress:

 $ref: 'nrNrm.yaml#/components/schemas/RemoteAddress'

 EP\_NLG-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/EP\_RP-Attr'

 - type: object

 properties:

 localAddress:

 $ref: 'nrNrm.yaml#/components/schemas/LocalAddress'

 remoteAddress:

 $ref: 'nrNrm.yaml#/components/schemas/RemoteAddress'

 FiveQiDscpMappingSet-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - type: object

 properties:

 FiveQiDscpMappingList:

 type: array

 items:

 $ref: '#/components/schemas/FiveQiDscpMapping'

 Configurable5QISet-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - type: object

 properties:

 configurable5QIs:

 type: array

 items:

 $ref: '#/components/schemas/FiveQICharacteristics'

 GtpUPathQoSMonitoringControl-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - type: object

 properties:

 gtpUPathQoSMonitoringState:

 type: string

 enum:

 - ENABLED

 - DISABLED

 gtpUPathMonitoredSNSSAIs:

 type: array

 items:

 $ref: 'nrNrm.yaml#/components/schemas/Snssai'

 monitoredDSCPs:

 type: array

 items:

 type: integer

 minimum: 0

 maximum: 255

 isEventTriggeredGtpUPathMonitoringSupported:

 type: boolean

 isPeriodicGtpUMonitoringSupported:

 type: boolean

 isImmediateGtpUMonitoringSupported:

 type: boolean

 gtpUPathDelayThresholds:

 $ref: '#/components/schemas/GtpUPathDelayThresholdsType'

 gtpUPathMinimumWaitTime:

 type: integer

 gtpUPathMeasurementPeriod:

 type: integer

 QFQoSMonitoringControl-Single:

 allOf:

 - $ref: 'genericNRM.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - type: object

 properties:

 qFQoSMonitoringState:

 type: string

 enum:

 - ENABLED

 - DISABLED

 qFMonitoredSNSSAIs:

 type: array

 items:

 $ref: 'nrNrm.yaml#/components/schemas/Snssai'

 qFMonitored5QIs:

 type: array

 items:

 type: integer

 minimum: 0

 maximum: 255

 isEventTriggeredQFMonitoringSupported:

 type: boolean

 isPeriodicQFMonitoringSupported:

 type: boolean

 isSessionReleasedQFMonitoringSupported:

 type: boolean

 qFPacketDelayThresholds:

 $ref: '#/components/schemas/QFPacketDelayThresholdsType'

 qFMinimumWaitTime:

 type: integer

 qFMeasurementPeriod:

 type: integer

#-------- Definition of JSON arrays for name-contained IOCs ----------------------

 SubNetwork-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/SubNetwork-Single'

 ManagedElement-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/ManagedElement-Single'

 AmfFunction-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/AmfFunction-Single'

 SmfFunction-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/SmfFunction-Single'

 UpfFunction-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/UpfFunction-Single'

 N3iwfFunction-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/N3iwfFunction-Single'

 PcfFunction-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/PcfFunction-Single'

 AusfFunction-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/AusfFunction-Single'

 UdmFunction-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/UdmFunction-Single'

 UdrFunction-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/UdrFunction-Single'

 UdsfFunction-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/UdsfFunction-Single'

 NrfFunction-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/NrfFunction-Single'

 NssfFunction-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/NssfFunction-Single'

 SmsfFunction-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/SmsfFunction-Single'

 LmfFunction-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/LmfFunction-Single'

 NgeirFunction-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/NgeirFunction-Single'

 SeppFunction-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/SeppFunction-Single'

 NwdafFunction-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/NwdafFunction-Single'

 ScpFunction-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/ScpFunction-Single'

 NefFunction-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/NefFunction-Single'

 ExternalAmfFunction-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/ExternalAmfFunction-Single'

 ExternalNrfFunction-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/ExternalNrfFunction-Single'

 ExternalNssfFunction-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/ExternalNssfFunction-Single'

 ExternalSeppFunction-Nultiple:

 type: array

 items:

 $ref: '#/components/schemas/ExternalSeppFunction-Single'

 AmfSet-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/AmfSet-Single'

 AmfRegion-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/AmfRegion-Single'

 EP\_N2-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_N2-Single'

 EP\_N3-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_N3-Single'

 EP\_N4-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_N4-Single'

 EP\_N5-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_N5-Single'

 EP\_N6-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_N6-Single'

 EP\_N7-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_N7-Single'

 EP\_N8-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_N8-Single'

 EP\_N9-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_N9-Single'

 EP\_N10-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_N10-Single'

 EP\_N11-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_N11-Single'

 EP\_N12-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_N12-Single'

 EP\_N13-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_N13-Single'

 EP\_N14-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_N14-Single'

 EP\_N15-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_N15-Single'

 EP\_N16-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_N16-Single'

 EP\_N17-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_N17-Single'

 EP\_N20-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_N20-Single'

 EP\_N21-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_N21-Single'

 EP\_N22-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_N22-Single'

 EP\_N26-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_N26-Single'

 EP\_N27-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_N27-Single'

 EP\_N31-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_N31-Single'

 EP\_N32-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_N32-Single'

 EP\_S5C-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_S5C-Single'

 EP\_S5U-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_S5U-Single'

 EP\_Rx-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_Rx-Single'

 EP\_MAP\_SMSC-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_MAP\_SMSC-Single'

 EP\_NLS-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_NLS-Single'

 EP\_NLG-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_NLG-Single'

 Configurable5QISet-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/Configurable5QISet-Single'

#------------ Definitions in TS 28.541 for TS 28.532 -----------------------------

 resources-5gcNrm:

 oneOf:

 - $ref: '#/components/schemas/SubNetwork-Single'

 - $ref: '#/components/schemas/ManagedElement-Single'

 - $ref: '#/components/schemas/AmfFunction-Single'

 - $ref: '#/components/schemas/SmfFunction-Single'

 - $ref: '#/components/schemas/UpfFunction-Single'

 - $ref: '#/components/schemas/N3iwfFunction-Single'

 - $ref: '#/components/schemas/PcfFunction-Single'

 - $ref: '#/components/schemas/AusfFunction-Single'

 - $ref: '#/components/schemas/UdmFunction-Single'

 - $ref: '#/components/schemas/UdrFunction-Single'

 - $ref: '#/components/schemas/UdsfFunction-Single'

 - $ref: '#/components/schemas/NrfFunction-Single'

 - $ref: '#/components/schemas/NssfFunction-Single'

 - $ref: '#/components/schemas/SmsfFunction-Single'

 - $ref: '#/components/schemas/LmfFunction-Single'

 - $ref: '#/components/schemas/NgeirFunction-Single'

 - $ref: '#/components/schemas/SeppFunction-Single'

 - $ref: '#/components/schemas/NwdafFunction-Single'

 - $ref: '#/components/schemas/ScpFunction-Single'

 - $ref: '#/components/schemas/NefFunction-Single'

 - $ref: '#/components/schemas/ExternalAmfFunction-Single'

 - $ref: '#/components/schemas/ExternalNrfFunction-Single'

 - $ref: '#/components/schemas/ExternalNssfFunction-Single'

 - $ref: '#/components/schemas/ExternalSeppFunction-Single'

 - $ref: '#/components/schemas/AmfSet-Single'

 - $ref: '#/components/schemas/AmfRegion-Single'

 - $ref: '#/components/schemas/QFQoSMonitoringControl-Single'

 - $ref: '#/components/schemas/GtpUPathQoSMonitoringControl-Single'

 - $ref: '#/components/schemas/EP\_N2-Single'

 - $ref: '#/components/schemas/EP\_N3-Single'

 - $ref: '#/components/schemas/EP\_N4-Single'

 - $ref: '#/components/schemas/EP\_N5-Single'

 - $ref: '#/components/schemas/EP\_N6-Single'

 - $ref: '#/components/schemas/EP\_N7-Single'

 - $ref: '#/components/schemas/EP\_N8-Single'

 - $ref: '#/components/schemas/EP\_N9-Single'

 - $ref: '#/components/schemas/EP\_N10-Single'

 - $ref: '#/components/schemas/EP\_N11-Single'

 - $ref: '#/components/schemas/EP\_N12-Single'

 - $ref: '#/components/schemas/EP\_N13-Single'

 - $ref: '#/components/schemas/EP\_N14-Single'

 - $ref: '#/components/schemas/EP\_N15-Single'

 - $ref: '#/components/schemas/EP\_N16-Single'

 - $ref: '#/components/schemas/EP\_N17-Single'

 - $ref: '#/components/schemas/EP\_N20-Single'

 - $ref: '#/components/schemas/EP\_N21-Single'

 - $ref: '#/components/schemas/EP\_N22-Single'

 - $ref: '#/components/schemas/EP\_N26-Single'

 - $ref: '#/components/schemas/EP\_N27-Single'

 - $ref: '#/components/schemas/EP\_N31-Single'

 - $ref: '#/components/schemas/EP\_N31-Single'

 - $ref: '#/components/schemas/EP\_S5C-Single'

 - $ref: '#/components/schemas/EP\_S5U-Single'

 - $ref: '#/components/schemas/EP\_Rx-Single'

 - $ref: '#/components/schemas/EP\_MAP\_SMSC-Single'

 - $ref: '#/components/schemas/EP\_NLS-Single'

 - $ref: '#/components/schemas/EP\_NLG-Single'

 - $ref: '#/components/schemas/Configurable5QISet-Single'

 - $ref: '#/components/schemas/FiveQiDscpMappingSet-Single'

|  |
| --- |
| **End of 2nd modification** |

|  |
| --- |
| **Start of 3rd modification** |

## J.4.3 OpenAPI document "sliceNrm.yaml"

openapi: 3.0.1

info:

 title: Slice NRM

 version: 16.4.0

 description: >-

 OAS 3.0.1 specification of the Slice NRM

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externalDocs:

 description: 3GPP TS 28.541 V16.4.0; 5G NRM, Slice NRM

 url: http://www.3gpp.org/ftp/Specs/archive/28\_series/28.541/

paths: {}

components:

 schemas:

#------------ Type definitions ---------------------------------------------------

 Float:

 type: number

 format: float

 MobilityLevel:

 type: string

 enum:

 - STATIONARY

 - NOMADIC

 - RESTRICTED MOBILITY

 - FULLY MOBILITY

 SharingLevel:

 type: string

 enum:

 - SHARED

 - NON-SHARED

 Category:

 type: string

 enum:

 - CHARACTER

 - SCALABILITY

 Tagging:

 type: string

 enum:

 - PERFORMANCE

 - FUNCTION

 - OPERATION

 Exposure:

 type: string

 enum:

 - API

 - KPI

 ServAttrCom:

 type: object

 properties:

 category:

 $ref: '#/components/schemas/Category'

 tagging:

 $ref: '#/components/schemas/Tagging'

 exposure:

 $ref: '#/components/schemas/Exposure'

 Support:

 type: string

 enum:

 - NOT SUPPORTED

 - SUPPORTED

 DelayTolerance:

 type: object

 properties:

 servAttrCom:

 $ref: '#/components/schemas/ServAttrCom'

 support:

 $ref: '#/components/schemas/Support'

 DeterministicComm:

 type: object

 properties:

 servAttrCom:

 $ref: '#/components/schemas/ServAttrCom'

 availability:

 $ref: '#/components/schemas/Support'

 periodicityList:

 type: string

 DLThptPerSlice:

 type: object

 properties:

 servAttrCom:

 $ref: '#/components/schemas/ServAttrCom'

 guaThpt:

 $ref: '#/components/schemas/Float'

 maxThpt:

 $ref: '#/components/schemas/Float'

 DLThptPerUE:

 type: object

 properties:

 servAttrCom:

 $ref: '#/components/schemas/ServAttrCom'

 guaThpt:

 $ref: '#/components/schemas/Float'

 maxThpt:

 $ref: '#/components/schemas/Float'

 ULThptPerSlice:

 type: object

 properties:

 servAttrCom:

 $ref: '#/components/schemas/ServAttrCom'

 guaThpt:

 $ref: '#/components/schemas/Float'

 maxThpt:

 $ref: '#/components/schemas/Float'

 ULThptPerUE:

 type: object

 properties:

 servAttrCom:

 $ref: '#/components/schemas/ServAttrCom'

 guaThpt:

 $ref: '#/components/schemas/Float'

 maxThpt:

 $ref: '#/components/schemas/Float'

 MaxPktSize:

 type: object

 properties:

 servAttrCom:

 $ref: '#/components/schemas/ServAttrCom'

 maxsize:

 type: integer

 MaxNumberofConns:

 type: object

 properties:

 servAttrCom:

 $ref: '#/components/schemas/ServAttrCom'

 nOofConn:

 type: integer

 KPIMonitoring:

 type: object

 properties:

 servAttrCom:

 $ref: '#/components/schemas/ServAttrCom'

 kPIList:

 type: string

 SupportedAccessTech:

 type: object

 properties:

 servAttrCom:

 $ref: '#/components/schemas/ServAttrCom'

 accTechList:

 type: integer

 UserMgmtOpen:

 type: object

 properties:

 servAttrCom:

 $ref: '#/components/schemas/ServAttrCom'

 support:

 $ref: '#/components/schemas/Support'

 V2XCommModels:

 type: object

 properties:

 servAttrCom:

 $ref: '#/components/schemas/ServAttrCom'

 v2XMode:

 $ref: '#/components/schemas/Support'

 TermDensity:

 type: object

 properties:

 servAttrCom:

 $ref: '#/components/schemas/ServAttrCom'

 density:

 type: integer

 NsInfo:

 type: object

 properties:

 nsInstanceId:

 type: string

 nsName:

 type: string

 ServiceProfileList:

 type: object

 additionalProperties:

 type: object

 properties:

 snssaiList:

 $ref: 'nrNrm.yaml#/components/schemas/SnssaiList'

 plmnIdList:

 $ref: 'nrNrm.yaml#/components/schemas/PlmnIdList'

 maxNumberofUEs:

 type: number

 latency:

 type: number

 uEMobilityLevel:

 $ref: '#/components/schemas/MobilityLevel'

 sst:

 $ref: 'nrNrm.yaml#/components/schemas/Sst'

 resourceSharingLevel:

 $ref: '#/components/schemas/SharingLevel'

 availability:

 type: number

 delayTolerance:

 $ref: '#/components/schemas/DelayTolerance'

 deterministicComm:

 $ref: '#/components/schemas/DeterministicComm'

 dLThptPerSlice:

 $ref: '#/components/schemas/DLThptPerSlice'

 dLThptPerUE:

 $ref: '#/components/schemas/DLThptPerUE'

 uLThptPerSlice:

 $ref: '#/components/schemas/ULThptPerSlice'

 uLThptPerUE:

 $ref: '#/components/schemas/ULThptPerUE'

 maxPktSize:

 $ref: '#/components/schemas/MaxPktSize'

 maxNumberofConns:

 $ref: '#/components/schemas/MaxNumberofConns'

 kPIMonitoring:

 $ref: '#/components/schemas/KPIMonitoring'

 supportedAccessTech:

 $ref: '#/components/schemas/SupportedAccessTech'

 userMgmtOpen:

 $ref: '#/components/schemas/UserMgmtOpen'

 v2XModels:

 $ref: '#/components/schemas/V2XCommModels'

 coverageArea:

 type: string

 termDensity:

 $ref: '#/components/schemas/TermDensity'

 activityFactor:

 $ref: '#/components/schemas/Float'

 uESpeed:

 type: integer

 jitter:

 type: integer

 survivalTime:

 type: string

 reliability:

 type: string

 SliceProfileList:

 type: object

 additionalProperties:

 type: object

 properties:

 snssaiList:

 $ref: 'nrNrm.yaml#/components/schemas/SnssaiList'

 plmnIdList:

 $ref: 'nrNrm.yaml#/components/schemas/PlmnIdList'

 maxNumberofUEs:

 type: number

 coverageAreaTAList:

 $ref: '5gcNrm.yaml#/components/schemas/TACList'

 latency:

 type: number

 uEMobilityLevel:

 $ref: '#/components/schemas/MobilityLevel'

 resourceSharingLevel:

 $ref: '#/components/schemas/SharingLevel'

 IpAddress:

 oneOf:

 - $ref: 'genericNrm.yaml#/components/schemas/Ipv4Addr'

 - $ref: 'genericNrm.yaml#/components/schemas/Ipv6Addr'

#------------ Definition of concrete IOCs ----------------------------------------

 NetworkSlice:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/SubNetwork-Attr'

 - type: object

 properties:

 networkSliceSubnetRef:

 $ref: 'genericNrm.yaml#/components/schemas/Dn'

 operationalState:

 $ref: 'genericNrm.yaml#/components/schemas/OperationalState'

 administrativeState:

 $ref: 'genericNrm.yaml#/components/schemas/AdministrativeState'

 serviceProfileList:

 $ref: '#/components/schemas/ServiceProfileList'

 NetworkSliceSubnet:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/SubNetwork-Attr'

 - type: object

 properties:

 managedFunctionRefList:

 $ref: 'genericNrm.yaml#/components/schemas/DnList'

 networkSliceSubnetRefList:

 $ref: 'genericNrm.yaml#/components/schemas/DnList'

 operationalState:

 $ref: 'genericNrm.yaml#/components/schemas/OperationalState'

 administrativeState:

 $ref: 'genericNrm.yaml#/components/schemas/AdministrativeState'

 nsInfo:

 $ref: '#/components/schemas/NsInfo'

 sliceProfileList:

 $ref: '#/components/schemas/SliceProfileList'

 EPTransport:

 $ref: '#/components/schemas/EP\_Transport-Multiple'

 EP\_Transport-Single:

 allOf:

 - $ref: 'genericNrm.yaml#/components/schemas/Top-Attr'

 - type: object

 properties:

 attributes:

 type: object

 properties:

 ipAddress:

 $ref: '#/components/schemas/IpAddress'

 logicInterfaceId:

 type: string

 nextHopInfo:

 type: string

 qosProfile:

 type: string

 epApplicationRefs:

 $ref: 'genericNrm.yaml#/components/schemas/DnList'

 EP\_Transport-Multiple:

 type: array

 items:

 $ref: '#/components/schemas/EP\_Transport-Single'

#------------ Definitions in TS 28.541 for TS 28.532 -----------------------------

 resources-sliceNrm:

 oneOf:

 - $ref: '#/components/schemas/NetworkSlice'

 - $ref: '#/components/schemas/NetworkSliceSubnet'

 - $ref: '#/components/schemas/EP\_Transport-Single'

|  |
| --- |
| **End of 3rd modification** |