**3GPP TSG-SA5 Meeting #155 *S5-243281***

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

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **28.623** | **CR** | **0351** | **rev** | **1** | **Current version:** | **18.6.0**  |  |
|  |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* |
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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network | **X** | Core Network | **X** |

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|  |
| ***Title:***  | Rel-19 CR TS 28.623 Remove ManagedNFService |
|  |  |
| ***Source to WG:*** | Huawei,Nokia, Nokia Shanghai Bell, ZTE |
| ***Source to TSG:*** | S5 |
|  |  |
| ***Work item code:*** | AdNRM\_Ph3 |  | ***Date:*** | 2024-05-13 |
|  |  |  |  |  |
| ***Category:*** | C |  | ***Release:*** | Rel-19 |
|  | *Use one of the following categories:****F*** *(correction)****A*** *(mirror corresponding to a change in an earlier release)****B*** *(addition of feature),* ***C*** *(functional modification of feature)****D*** *(editorial modification)*Detailed explanations of the above categories canbe found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | *Use one of the following releases:Rel-8 (Release 8)Rel-9 (Release 9)Rel-10 (Release 10)Rel-11 (Release 11)…Rel-15 (Release 15)Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)* |
|  |  |
| ***Reason for change:*** | Following issues observed for NRM fragment for ManagedNFService:1**.** From specification view, TS 28.622 defines the generic model which is agnostic to generation and domains, however, the ManagedNFService IOC is 5GC specific.2. ManagedNFService is name-contained by ManagedFunction which is also inherited by NG-RAN ManagedFunction (e.g. GNBCUCPFunction), it gives impression that GNBCUCPFunction also name contained ManagedFunctionService.  |
|  |  |
| ***Summary of change:*** | 1. Move NRM Fragment definition for ManagedNFService from generic information model definitions in TS 28.622/623 to 5GC NRM information model definitions in TS 28.541.
2. Remove the name contain information between ManagedFunction and ManagedNFService
 |
|  |  |
| ***Consequences if not approved:*** | The implementation of MangedNFService is incorrect |
|  |  |
| ***Clauses affected:*** | YAML code normatively stored in the 3GPP Forge |
|  |  |
|  | **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 28.622 CR 0369 |
|  |  |
| ***Other comments:*** | Forge MR link: <https://forge.3gpp.org/rep/sa5/MnS/-/merge_requests/1143> at commit 927f94d6c245201a6b1b06166e2211226920951f |
|  |  |
| ***This CR's revision history:*** |  |

|  |
| --- |
| **1st Change** |

\*\*\* START OF CHANGE 3 \*\*\*

\*\*\* OpenAPI/TS28623\_GenericNrm.yaml \*\*\*

<CODE BEGINS>

openapi: 3.0.1

info:

 title: Generic NRM

 version: 18.6.0

 description: >-

 OAS 3.0.1 definition of the Generic NRM

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externalDocs:

 description: 3GPP TS 28.623; Generic NRM

 url: http://www.3gpp.org/ftp/Specs/archive/28\_series/28.623/

paths: {}

components:

 schemas:

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

 VnfParameter:

 type: object

 properties:

 vnfInstanceId:

 type: string

 vnfdId:

 type: string

 flavourId:

 type: string

 autoScalable:

 type: boolean

 PeeParameter:

 type: object

 properties:

 siteIdentification:

 type: string

 siteDescription:

 type: string

 siteLatitude:

 $ref: 'TS28623\_ComDefs.yaml#/components/schemas/Latitude'

 siteLongitude:

 $ref: 'TS28623\_ComDefs.yaml#/components/schemas/Longitude'

 siteAltitude:

 type: number

 format: float

 equipmentType:

 type: string

 environmentType:

 type: string

 powerInterface:

 type: string

 TransportProtocol:

 anyOf:

 - type: string

 enum:

 - TCP

 - type: string

 SupportedPerfMetricGroup:

 type: object

 properties:

 performanceMetrics:

 type: array

 items:

 type: string

 granularityPeriods:

 type: array

 items:

 type: integer

 minimum: 1

 reportingMethods:

 type: array

 items:

 type: string

 enum:

 - FILE\_BASED\_LOC\_SET\_BY\_PRODUCER

 - FILE\_BASED\_LOC\_SET\_BY\_CONSUMER

 - STREAM\_BASED

 reportingPeriods:

 type: array

 items:

 type: integer

 minimum: 1

 ReportingCtrl:

 oneOf:

 - type: object

 properties:

 fileReportingPeriod:

 type: integer

 - type: object

 properties:

 fileReportingPeriod:

 type: integer

 notificationRecipientAddress:

 $ref: 'TS28623\_ComDefs.yaml#/components/schemas/Uri'

 - type: object

 properties:

 fileReportingPeriod:

 type: integer

 fileLocation:

 $ref: 'TS28623\_ComDefs.yaml#/components/schemas/Uri'

 - type: object

 properties:

 streamTarget:

 $ref: 'TS28623\_ComDefs.yaml#/components/schemas/Uri'

 Scope:

 oneOf:

 - type: object

 properties:

 scopeType:

 type: string

 enum:

 - BASE\_ONLY

 - BASE\_ALL

 - BASE\_NTH\_LEVEL

 - BASE\_SUBTREE

 scopeLevel:

 type: integer

 - type: object

 properties:

 dataNodeSelector:

 type: string

 ProcessMonitor:

 description: >-

 This data type is the "ProcessMonitor" data type without specialisations.

 type: object

 properties:

 jobId:

 type: string

 status:

 type: string

 enum:

 - NOT\_STARTED

 - RUNNING

 - FINSHED

 - FAILED

 - PARTIALLY\_FAILED

 - CANCELLING

 - CANCELLED

 progressPercentage:

 type: integer

 minimum: 0

 maximum: 100

 progressStateInfo:

 type: string

 resultStateInfo:

 type: string

 startTime:

 $ref: 'TS28623\_ComDefs.yaml#/components/schemas/DateTime'

 endTime:

 $ref: 'TS28623\_ComDefs.yaml#/components/schemas/DateTime'

 timer:

 type: integer

 AreaScope:

 oneOf:

 - type: array

 items:

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

 - type: array

 items:

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

 - type: array

 items:

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

 - type: array

 items:

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

 - type: array

 items:

 $ref: '#/components/schemas/NpnId-Type'

 Tai:

 type: object

 properties:

 mcc:

 $ref: 'TS28623\_ComDefs.yaml#/components/schemas/Mcc'

 mnc:

 $ref: 'TS28623\_ComDefs.yaml#/components/schemas/Mnc'

 tac:

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

 Tac:

 type: string

 pattern: '(^[A-Fa-f0-9]{4}$)|(^[A-Fa-f0-9]{6}$)'

 EutraCellId:

 type: string

 pattern: '^[A-Fa-f0-9]{7}$'

 NrCellId:

 type: string

 pattern: '^[A-Fa-f0-9]{9}$'

 IpAddr:

 oneOf:

 - $ref: 'TS28623\_ComDefs.yaml#/components/schemas/Ipv4Addr'

 - $ref: 'TS28623\_ComDefs.yaml#/components/schemas/Ipv6Addr'

 SchedulingTime:

 oneOf:

 - $ref: 'TS28623\_ComDefs.yaml#/components/schemas/TimeWindow'

 - type: object

 properties:

 timeIntervals:

 type: array

 items:

 $ref: 'TS28623\_ComDefs.yaml#/components/schemas/TimeInterval'

 - type: object

 properties:

 timeIntervals:

 type: array

 items:

 $ref: 'TS28623\_ComDefs.yaml#/components/schemas/TimeInterval'

 daysOfWeek:

 type: array

 items:

 type: string

 enum:

 - MONDAY

 - TUESDAY

 - WEDNESDAY

 - THURSDAY

 - FRIDAY

 - SATURDAY

 - SUNDAY

 - type: object

 properties:

 timeIntervals:

 type: array

 items:

 $ref: 'TS28623\_ComDefs.yaml#/components/schemas/TimeInterval'

 daysOfMonth:

 type: array

 items:

 type: integer

 minimum: 0

 maximum: 31

 NpnId-Type:

 type: object

 description: This describes the PLMN id, CAG ID list or the NID of the SNPN within the PLMN.

 properties:

 plmnId:

 $ref: 'TS28623\_ComDefs.yaml#/components/schemas/PlmnId'

 cAGIdList:

 type: array

 items:

 type: string

 nIDList:

 type: array

 items:

 $ref: 'TS28623\_ComDefs.yaml#/components/schemas/Nid'

#-------- Definition of abstract IOC Top -----------------------------------------

 Top-Attr:

 # This definition will be deprecated, when all occurances of Top-Attr

 # are replaced by Top.

 type: object

 properties:

 id:

 type: string

 nullable: true

 objectClass:

 type: string

 objectInstance:

 $ref: 'TS28623\_ComDefs.yaml#/components/schemas/Dn'

 VsDataContainer:

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

 required:

 - id

 Top:

 type: object

 properties:

 id:

 type: string

 nullable: true

 objectClass:

 type: string

 objectInstance:

 $ref: 'TS28623\_ComDefs.yaml#/components/schemas/Dn'

 VsDataContainer:

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

 required:

 - id

#-------- Definition of IOCs with new name-containments defined in other TS ------

 SubNetwork-Attr:

 type: object

 properties:

 dnPrefix:

 type: string

 userLabel:

 type: string

 userDefinedNetworkType:

 type: string

 setOfMcc:

 type: array

 items:

 $ref: 'TS28623\_ComDefs.yaml#/components/schemas/Mcc'

 priorityLabel:

 type: integer

 supportedPerfMetricGroups:

 type: array

 items:

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

 supportedTraceMetrics:

 type: array

 items:

 type: string

 ManagedElement-Attr:

 type: object

 properties:

 dnPrefix:

 type: string

 managedElementTypeList:

 type: array

 items:

 type: string

 userLabel:

 type: string

 locationName:

 type: string

 managedBy:

 $ref: 'TS28623\_ComDefs.yaml#/components/schemas/DnList'

 vendorName:

 type: string

 userDefinedState:

 type: string

 swVersion:

 type: string

 priorityLabel:

 type: integer

 supportedPerfMetricGroups:

 type: array

 items:

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

 supportedTraceMetrics:

 type: array

 items:

 type: string

 SubNetwork-ncO:

 type: object

 properties:

 ManagementNode:

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

 MnsAgent:

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

 MeContext:

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

 PerfMetricJob:

 $ref: 'TS28623\_PmControlNrm.yaml#/components/schemas/PerfMetricJob-Multiple'

 ThresholdMonitor:

 $ref: 'TS28623\_ThresholdMonitorNrm.yaml#/components/schemas/ThresholdMonitor-Multiple'

 TraceJob:

 $ref: 'TS28623\_TraceControlNrm.yaml#/components/schemas/TraceJob-Multiple'

 ManagementDataCollection:

 $ref: 'TS28623\_ManagementDataCollectionNrm.yaml#/components/schemas/ManagementDataCollection-Multiple'

 NtfSubscriptionControl:

 $ref: 'TS28623\_SubscriptionControlNrm.yaml#/components/schemas/NtfSubscriptionControl-Multiple'

 AlarmList:

 $ref: 'TS28111\_FaultNrm.yaml#/components/schemas/AlarmList-Single'

 FileDownloadJob:

 $ref: 'TS28623\_FileManagementNrm.yaml#/components/schemas/FileDownloadJob-Multiple'

 Files:

 $ref: 'TS28623\_FileManagementNrm.yaml#/components/schemas/Files-Multiple'

 MnsRegistry:

 $ref: 'TS28623\_MnSRegistryNrm.yaml#/components/schemas/MnsRegistry-Single'

 Scheduler:

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

 ConditionMonitor:

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

 SupportedNotifications:

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

 QMCJobs:

 $ref: 'TS28623\_QoEMeasurementCollectionNrm.yaml#/components/schemas/QMCJob-Multiple'

 ManagedElement-ncO:

 type: object

 properties:

 MnsAgent:

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

 PerfMetricJob:

 $ref: 'TS28623\_PmControlNrm.yaml#/components/schemas/PerfMetricJob-Multiple'

 ThresholdMonitor:

 $ref: 'TS28623\_ThresholdMonitorNrm.yaml#/components/schemas/ThresholdMonitor-Multiple'

 TraceJob:

 $ref: 'TS28623\_TraceControlNrm.yaml#/components/schemas/TraceJob-Multiple'

 NtfSubscriptionControl:

 $ref: 'TS28623\_SubscriptionControlNrm.yaml#/components/schemas/NtfSubscriptionControl-Multiple'

 AlarmList:

 $ref: 'TS28111\_FaultNrm.yaml#/components/schemas/AlarmList-Single'

 FileDownloadJob:

 $ref: 'TS28623\_FileManagementNrm.yaml#/components/schemas/FileDownloadJob-Multiple'

 Files:

 $ref: 'TS28623\_FileManagementNrm.yaml#/components/schemas/Files-Multiple'

 Scheduler:

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

 ConditionMonitor:

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

 SupportedNotifications:

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

 QMCJobs:

 $ref: 'TS28623\_QoEMeasurementCollectionNrm.yaml#/components/schemas/QMCJob-Multiple'

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

 ManagedFunction-Attr:

 type: object

 properties:

 userLabel:

 type: string

 vnfParametersList:

 type: array

 items:

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

 peeParametersList:

 type: array

 items:

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

 priorityLabel:

 type: integer

 supportedPerfMetricGroups:

 type: array

 items:

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

 supportedTraceMetrics:

 type: array

 items:

 type: string

 EP\_RP-Attr:

 type: object

 properties:

 userLabel:

 type: string

 farEndEntity:

 type: string

 supportedPerfMetricGroups:

 type: array

 items:

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

 ManagedFunction-ncO:

 type: object

 properties:

 PerfMetricJob:

 $ref: 'TS28623\_PmControlNrm.yaml#/components/schemas/PerfMetricJob-Multiple'

 ThresholdMonitor:

 $ref: 'TS28623\_ThresholdMonitorNrm.yaml#/components/schemas/ThresholdMonitor-Multiple'

 TraceJob:

 $ref: 'TS28623\_TraceControlNrm.yaml#/components/schemas/TraceJob-Multiple'

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

 VsDataContainer-Single:

 type: object

 properties:

 id:

 type: string

 attributes:

 type: object

 properties:

 vsDataType:

 type: string

 vsDataFormatVersion:

 type: string

 vsData:

 nullable: true

 VsDataContainer:

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

 ManagementNode-Single:

 allOf:

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

 - type: object

 properties:

 attributes:

 type: object

 properties:

 userLabel:

 type: string

 managedElements:

 $ref: 'TS28623\_ComDefs.yaml#/components/schemas/DnList'

 vendorName:

 type: string

 userDefinedState:

 type: string

 locationName:

 type: string

 swVersion:

 type: string

 MnsAgent:

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

 MnsAgent-Single:

 allOf:

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

 - type: object

 properties:

 attributes:

 type: object

 properties:

 systemDN:

 $ref: 'TS28623\_ComDefs.yaml#/components/schemas/Dn'

 MeContext-Single:

 allOf:

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

 - type: object

 properties:

 attributes:

 type: object

 properties:

 dnPrefix:

 type: string

 Scheduler-Single:

 allOf:

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

 - type: object

 properties:

 attributes:

 type: object

 properties:

 schedulingTimes:

 type: array

 items:

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

 minItems: 1

 schedulerStatus:

 type: boolean

 ConditionMonitor-Single:

 allOf:

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

 - type: object

 properties:

 attributes:

 type: object

 properties:

 condition:

 type: string

 conditionStatus:

 type: boolean

 SupportedNotifications-Single:

 allOf:

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

 - type: object

 properties:

 attributes:

 type: object

 properties:

 notificationTypes:

 type: array

 items:

 $ref: 'TS28623\_ComDefs.yaml#/components/schemas/NotificationType'

 notificationProtocols:

 type: array

 items:

 type: string

 enum:

 - HTTP

 - HTTP\_VES\_ENCAPS

 minItems: 1

 SubNetwork-Single:

 allOf:

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

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

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

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

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

 - $ref: 'TS28104\_MdaNrm.yaml#/components/schemas/SubNetwork-ncO-MdaNrm'

 - $ref: 'TS28105\_AiMlNrm.yaml#/components/schemas/SubNetwork-ncO-AiMlNrm'

 - $ref: 'TS28312\_IntentNrm.yaml#/components/schemas/SubNetwork-ncO-IntentNrm'

 - $ref: 'TS28317\_RanScNrm.yaml#/components/schemas/SubNetwork-ncO-RanScNrm'

 - $ref: 'TS28536\_CoslaNrm.yaml#/components/schemas/SubNetwork-ncO-CoslaNrm'

 - $ref: 'TS28538\_EdgeNrm.yaml#/components/schemas/SubNetwork-ncO-EdgeNrm'

 - $ref: 'TS28541\_SliceNrm.yaml#/components/schemas/SubNetwork-ncO-SliceNrm'

 - $ref: 'TS28541\_NrNrm.yaml#/components/schemas/SubNetwork-ncO-NrNrm'

 - $ref: 'TS28541\_5GcNrm.yaml#/components/schemas/SubNetwork-ncO-5GcNrm'

 - $ref: 'TS28318\_DsoNrm.yaml#/components/schemas/SubNetwork-ncO-DsoNrm'

 ManagedElement-Single:

 allOf:

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

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

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

 - $ref: 'TS28104\_MdaNrm.yaml#/components/schemas/ManagedElement-ncO-MdaNrm'

 - $ref: 'TS28105\_AiMlNrm.yaml#/components/schemas/ManagedElement-ncO-AiMlNrm'

 - $ref: 'TS28536\_CoslaNrm.yaml#/components/schemas/ManagedElement-ncO-CoslaNrm'

 - $ref: 'TS28541\_NrNrm.yaml#/components/schemas/ManagedElement-ncO-NrNrm'

 - $ref: 'TS28541\_5GcNrm.yaml#/components/schemas/ManagedElement-ncO-5GcNrm'

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

 VsDataContainer-Multiple:

 type: array

 items:

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

 ManagementNode-Multiple:

 type: array

 items:

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

 MnsAgent-Multiple:

 type: array

 items:

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

 MeContext-Multiple:

 type: array

 items:

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

 Scheduler-Multiple:

 type: array

 items:

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

 ConditionMonitor-Multiple:

 type: array

 items:

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

 SubNetwork-Multiple:

 type: array

 items:

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

 ManagedElement-Multiple:

 type: array

 items:

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

#-------- Definitions in TS 28.623 for TS 28.532 ---------------------------------

 resources-genericNrm:

 oneOf:

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

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

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

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

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

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

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

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

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

<CODE ENDS>

\*\*\* END OF CHANGE 3 \*\*\*

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| --- |
| **End of Changes** |