**3GPP TSG-SA4 Meeting #112-e *S4-210292***

**, 1st – 10th Februay 2021** *revision of S4-20174*

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  |  | **CR** | **0007** | **rev** | **1** | **Current version:** | 16.1.0 |  |
|  | | | | | | | | |
| *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 | **X** | Radio Access Network |  | Core Network | **X** |

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| ***Title:*** | CR on OpenAPI Implementation of m1 interface | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Qualcomm Inc. | | | | | | | | | |
| ***Source to TSG:*** |  | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** |  | | | | |  | ***Date:*** | | | 27th January 2020 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | F |  | | | | | ***Release:*** | | | 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 can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) … Rel-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | This CR is with the accordance with the new 3GPP procedures for documenting OpenAPI interfaces on 3GPP Forge. It contains the implementation of the m1 interface in the branch m1-dev | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | The CR documents the implementation of the m1 interface by providing the corresponding YAML files. | | | | | | | | |
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| ***Consequences if not approved:*** | | The implementation will be incomplete. | | | | | | | | |
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| ***Clauses affected:*** | | C.1, C.2, C.3, C.4 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

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| **First Change** |

# C.1 General

This annex is based on the OpenAPI 3.0.0 specification [23] and provides corresponding representations of all APIs defined in the present specification.

NOTE 1: An OpenAPIs representation embeds JSON Schema representations of HTTP message bodies.

This annex shall take precedence when being discrepant to other parts of the specification with respect to the encoding of information elements and methods within the API(s).

NOTE 2: The semantics and procedures, as well as conditions, e.g. for the applicability and allowed combinations of attributes or values, not expressed in the OpenAPI definitions but defined in other parts of the specification also apply.

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| **Second Change** |

# C.2 Data Types applicable to several APIs

For the purpose of referencing entities in the Open API file defined in this annex, it shall be assumed that this Open API file is contained in a physical file named "TS26512\_CommonTypes.yaml".

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| openapi: 3.0.0  servers:    - url: '{apiRoot}/'      variables:        apiRoot:          default: https://example.com          description: apiRoot as defined in clause 4.4 of 3GPP TS 29.501  info:    description: Documentation of the 3GPP 5GMS Common Data Types.    version: 1.0.0    title: 3GPP 5GMS Common Types  tags:    - name: 3GPP TS 26.512      description: 5G Media Streaming Common Types      externalDocs:        description: Find out more        url: 'http://www.3gpp.org'  externalDocs:    description: TS 26.512    url: 'http://www.3gpp.org/DynaReport/26512.htm'  paths:    /:      description: 'This only defines a set of common reusable components'  components:    schemas:      PathRewriteRule:        type: object        properties:          originPathPattern:            type: string          distributionPath:            type: string      GeofencingLocators:        type: object        properties:          locatorType:            type: string            enum:              - cell              - city          locators:            type: array            items:              type: string      Pattern:        type: object        properties:          pattern:            type: string      QoSSpecification:        type: object        properties:          marBwUl:            $ref: 'TS29571\_CommonData.yaml#/components/schemas/BitRate'          marBwDl:            $ref: 'TS29571\_CommonData.yaml#/components/schemas/BitRate'          maxPacketLossRateDl:            $ref: 'TS29571\_CommonData.yaml#/components/schemas/PacketLossRateRm'          maxPacketLossRateUl:            $ref: 'TS29571\_CommonData.yaml#/components/schemas/PacketLossRateRm'          maxSuppBwDl:            $ref: 'TS29571\_CommonData.yaml#/components/schemas/BitRate'          maxSuppBwUl:            $ref: 'TS29571\_CommonData.yaml#/components/schemas/BitRate'          minDesBwDl:            $ref: 'TS29571\_CommonData.yaml#/components/schemas/BitRate'          minDesBwUl:            $ref: 'TS29571\_CommonData.yaml#/components/schemas/BitRate'          mirBwUl:            $ref: 'TS29571\_CommonData.yaml#/components/schemas/BitRate'          mirBwDl:            $ref: 'TS29571\_CommonData.yaml#/components/schemas/BitRate'      ApplicationSessionContext:        type: object        properties:          afAppId:            $ref: 'TS29514\_Npcf\_PolicyAuthorization.yaml#/components/schemas/AfAppId'          sliceInfo:            $ref: 'TS29571\_CommonData.yaml#/components/schemas/Snssai'          dnn:            $ref: 'TS29571\_CommonData.yaml#/components/schemas/Dnn'          aspId:            $ref: 'TS29514\_Npcf\_PolicyAuthorization.yaml#/components/schemas/AspId'      ChargingSpecification:        type: object        properties:          sponId:            type: string          sponStatus:            $ref: 'TS29514\_Npcf\_PolicyAuthorization.yaml#/components/schemas/SponsoringStatus'          gpsi:            type: array            items:              $ref: 'TS29571\_CommonData.yaml#/components/schemas/Gpsi'      Percentage:        type: number      DurationSec:        type: integer      DateTime:        type: string      IpPacketFilterSet:        type: object        required:          - direction        properties:          srcIp:            type: string          dstIp:            type: string          protocol:            type: integer          srcPort:            type: integer          dstPort:            type: integer          toSTc:            type: string          flowLabel:            type: integer          spi:            type: integer          direction:            type: string      ServiceDataFlowDescription:        type: object        properties:          flowDescription:            $ref: '#/components/schemas/IpPacketFilterSet'          domainName:            type: string      M5QoSSpecification:        type: object        required:          - marBwDlBitRate          - marBwUlBitRate          - mirBwDlBitRate          - mirBwUlBitRate        properties:          marBwDlBitRate:              $ref: 'TS29571\_CommonData.yaml#/components/schemas/BitRate'          marBwUlBitRate:              $ref: 'TS29571\_CommonData.yaml#/components/schemas/BitRate'          minDesBwDlBitRate:              $ref: 'TS29571\_CommonData.yaml#/components/schemas/BitRate'          minDesBwUlBitRate:              $ref: 'TS29571\_CommonData.yaml#/components/schemas/BitRate'          mirBwDlBitRate:              $ref: 'TS29571\_CommonData.yaml#/components/schemas/BitRate'          mirBwUlBitRate:              $ref: 'TS29571\_CommonData.yaml#/components/schemas/BitRate'          desLatency:            type: integer          desLoss:            type: integer      TypedLocation:        type: object        required:          - locationIdentifierType          - location        properties:          locationIdentifierType:            $ref: '#/components/schemas/CellIdentifierType'          location:            type: string      OperationSuccessResponse:        type: object        required:        - success        properties:          success:            type: boolean          reason:            type: string      CellIdentifierType:        type: string        enum: [ CGI, ECGI, NCGI ]      SdfMethod:        type: string        enum: [5Tuple, 2Tuple, typeOfServiceMarking, flowLabel, domainName]      ProvisioningSessionType:        type: string        enum: [downlink, uplink] |

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| **Third Change** |

# C.3 OpenAPI representation of the M1 APIs

## C.3.1 ProvisioningSessions API

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| --- |
| openapi: 3.0.0  servers:    - url: '{apiRoot}/3gpp-m1/v1'      variables:        apiRoot:          default: https://example.com          description: apiRoot as defined in clause 4.4 of 3GPP TS 29.501  info:    description: Documentation of the 3GPP M1 Provisioning interface.    version: 1.0.0    title: 3GPP M1 interface Provisioning Sessions API  tags:    - name: 3GPP TS 26.512      description: 5G Media Provisioning Interface M1 Provisioning Sessions      externalDocs:        description: Find out more        url: 'http://www.3gpp.org'  paths:    /provisioning-sessions:      get:        summary: 'List of all Provisioning Sessions'        description: ''        parameters:          - name: provisioningSessionId            in: query            required: false            schema:              type: string            description: A unique identifier of the Provisioning Session        operationId: 'listProvisionings'        responses:          '200':            description: List of Provisioning Sessions            content:              application/json:                schema:                  $ref: '#/components/schemas/ProvisioningSession'      post:        summary: 'Create a new Provisioning Session'        description: ''        requestBody:          description: initial configuration of new Provisioning Session          required: true          content:            application/json:              schema:                $ref: '#/components/schemas/ProvisioningSession'        parameters: []        operationId: 'Create a new Provisioning Session'        responses:          '201':            description: Created      /provisioning-sessions/{provisioningSessionId}:      parameters:          - name: provisioningSessionId            in: path            required: true            schema:              type: string            description: A unique identifier of the Provisioning Session      get:        summary: 'Get Provisioning Session'        description: ''        parameters: []        operationId: 'getProvisioningById'        responses:          '200':            description: list of Provisioning sessions            content:              application/json:                schema:                  $ref: '#/components/schemas/ProvisioningSession'      put:        summary: 'Update a Provisioning Session'        description: ''        parameters: []        operationId: ''        responses:          default:            description: Default response      delete:        summary: ''        description: ''        parameters: []        operationId: ''        responses:          default:            description: Default response    externalDocs:    description: TS 26.512    url: 'http://www.3gpp.org/DynaReport/26346.htm'  components:    schemas:      ProvisioningSession:        type: object        required:          - id        properties:          id:            type: integer            format: int64    securitySchemes:      m1d\_auth:        type: oauth2        flows:          authorizationCode:            authorizationUrl: https://www.3gpp.org/3gpp-m1d/v1/authorize            tokenUrl: https://www.3gpp.org/3gpp-m1d/v1/token            scopes:              read: Grants read access              write: Grants write access              admin: Grants access to admin operations    links: {}    callbacks: {}  security:  - m1d\_auth: [] |

## C.3.2 ServerCertificatesProvisioning API

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| openapi: 3.0.0  servers:    - url: '{apiRoot}/3gpp-m1/v1'      variables:        apiRoot:          default: https://example.com          description: apiRoot as defined in clause 4.4 of 3GPP TS 29.501  info:    description: Documentation of the 3GPP M1 Provisioning interface Certificate    version: 1.0.0    title: 3GPP M1 interface  tags:    - name: 3GPP TS 26.512      description: 5G Media Provisioning Interface M1 Server Certificate      externalDocs:        description: Find out more        url: 'http://www.3gpp.org'  paths:    /provisioning-sessions/{provisioningSessionId}/certificates:      parameters:        - name: provisioningSessionId          in: path          required: true          schema:            type: string          description: 'A unique identifier of the the Provisioning'      post:        summary: 'Create a new security certificate'        description: ''        responses:          '200':            description: 'The generated certificate'            headers:              Location:                description: 'Location of the newly created server certificate'                schema:                  type: string            content:              'application/x-pem-file':                schema:                  type: string      get:        summary: 'retrieve previously uploaded server certificate'        parameters:          - name: certificateId            in: path            required: true            schema:              type: string            description: 'A unisque identifier of the server certificate'        responses:          '200':            description: 'the server certificate'            content:              'application/x-pem-file':                schema:                  type: string  externalDocs:    description: TS 26.512    url: 'http://www.3gpp.org/DynaReport/26346.htm'  components:    schemas:      Certificate:        type: object        required:          - "id"        properties:          id:            type: string      securitySchemes:      m1d\_auth:        type: oauth2        flows:          authorizationCode:            authorizationUrl: https://www.3gpp.org/3gpp-m1d/v1/authorize            tokenUrl: https://www.3gpp.org/3gpp-m1d/v1/token            scopes:              read: Grants read access              write: Grants write access              admin: Grants access to admin operations    links: {}    callbacks: {}  security:  - m1d\_auth: [] |

## C.3.3 ContentPreparationTemplatesProvisioning API

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## C.3.4 ContentProtocolsDiscovery API

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## C.3.5 ContentHostingProvisioning API

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| openapi: 3.0.0  servers:    - url: '{apiRoot}/3gpp-m1/v1'      variables:        apiRoot:          default: https://example.com          description: apiRoot as defined in clause 4.4 of 3GPP TS 29.501  info:    description: Documentation of the 3GPP M1d Provisioning interface.    version: 1.0.0    title: 3GPP M1d interface  tags:    - name: 3GPP TS 26.512      description: 5G Media Provisioning Interface M1d Content Hosting Configuration      externalDocs:        description: Find out more        url: 'http://www.3gpp.org'  paths:    /provisioning-sessions/{provisioningSessionId}/content-hosting-configurations:      parameters:          - name: provisioningSessionId            in: path            required: true            schema:              type: string            description: 'A unique identifier of the Provisioning'      get:        summary: 'retrieve an existing Content Hosting Configuration'        description: 'retrieve an existing Content Hosting Configuration'        parameters:          - name: contentHostingConfigurationId            in: query            required: false            schema:              type: string            description: A unique identifier of the Content Hosting Configuration        responses:          '200':            description: The Content Hosting Configuration            content:              application/json:                schema:                  $ref: '#/components/schemas/ContentHostingConfiguration'      post:        summary: 'create a Content Hosting Configuration'        description: 'Used to retrieve an existing Content Hosting Configuration'        responses:          '201':            description: Created            headers:              Location:                description: 'Location of the newly created Content Hosting Configuration'                schema:                  type: string              content:              application/json:                schema:                  $ref: '#/components/schemas/ContentHostingConfiguration'      /provisioning-sessions/{provisioningSessionId}/content-hosting-configuration/{contentHostingConfigurationId}:      parameters:          - name: provisioningSessionId            in: path            required: true            schema:              type: string            description: A unique identifier of the Provisioning Session          - name: contentHostingConfigurationId            in: path            required: true            schema:              type: string            description: A unique identifier of the Content Hosting Configuration      get:        summary: 'retrieve an existing Content Hosting Configuration'        description: 'retrieve an existing Content Hosting Configuration'        responses:          '200':            description: The identified Provisioning            content:              application/json:                schema:                  $ref: '#/components/schemas/ContentHostingConfiguration'      put:        summary: ''        description: ''        responses:          default:            description: ''      delete:        summary: ''        description: ''        responses:          default:            description: Default response        /provisioning-sessions/{provisioningSessionId}/content-hosting-configuration/{contentHostingConfigurationId}/purge:      parameters:          - name: provisioningSessionId            in: path            required: true            schema:              type: string            description: A unique identifier of the Provisioning          - name: contentHostingConfigurationId            in: path            required: true            schema:              type: string            description: A unique identifier of the Content Hosting Configuration      post:        summary: 'Purge the content of the cache'        description: ''        requestBody:          description: 'The RegEx pattern for resources to purge from the cache'          required: true          content:            application/json:              schema:                $ref: '#/components/schemas/Pattern'          responses:          '200':            description: 'Content was purged successfully'  externalDocs:    description: TS 26.512    url: 'http://www.3gpp.org/DynaReport/26346.htm'  components:    schemas:      ContentHostingConfiguration:        type: object        required:          - id          - origin        properties:          id:            type: integer            format: int64          ingestConfiguration:            $ref: '#/components/schemas/IngestConfiguration'          distributionConfiguration:            type: array            items:              $ref: '#/components/schemas/DistributionConfiguration'      IngestConfiguration:        type: object        properties:          name:            type: string          path:            type: string          pull:            type: boolean          protocol:            type: string            enum:              - dashifpush          entryPoint:            type: string        xml:          name: IngestConfiguration      DistributionConfiguration:        type: object        properties:          contentPreparationTemplateId:            type: string          targetDomain:            type: string          originDomain:            type: string          pathRewriteRules:            type: array            items:              $ref: '#/components/schemas/PathRewriteRule'          cacheConfiguration:            type: array            items:              $ref: '#/components/schemas/CachingConfiguration'          geoFencing:            type: array            items:              $ref: '#/components/schemas/Geo'          urlSignature:            type: object            properties:              urlPattern:                type: string              tokenName:                type: string              passphraseName:                type: string              passphrase:                type: string              tokenExpiryName:                type: string              useIPAddress:                type: boolean              ipAddressName:                type: string          certificateId:            type: integer        xml:          name: DistributionConfiguration      PathRewriteRule:        type: object        properties:          originPathPattern:            type: string          distributionPath:            type: string      CachingConfiguration:        type: object        properties:          urlPatternFilter:            type: string          cachingDirectives:            type: object            properties:              statusCodeFilters:                type: array                items:                  type: integer              noCache:                type: boolean              maxAge:                type: integer                format: int32    securitySchemes:      m1d\_auth:        type: oauth2        flows:          authorizationCode:            authorizationUrl: https://www.3gpp.org/3gpp-m1d/v1/authorize            tokenUrl: https://www.3gpp.org/3gpp-m1d/v1/token            scopes:              read: Grants read access              write: Grants write access              admin: Grants access to admin operations    links: {}    callbacks: {}  security:  - m1d\_auth: [] |

## C.3.6 ConsumptionReportingProvisioning API

|  |
| --- |
| openapi: 3.0.0  servers:    - url: '{apiRoot}/3gpp-m1/v1'      variables:        apiRoot:          default: https://example.com          description: apiRoot as defined in clause 4.4 of 3GPP TS 29.501  info:    description: Documentation of the 3GPP M1d Provisioning interface Consumption Reporting.    version: 1.0.0    title: 3GPP M1d interface  tags:    - name: 3GPP TS 26.512      description: 5G Media Provisioning Interface M1d Consumption Reporting      externalDocs:        description: Find out more        url: 'http://www.3gpp.org'  paths:    /provisioning-sessions/{provisioningSessionId}/consumption-reporting-configuration:      parameters:        - name: provisioningSessionId          in: path          required: true          schema:            type: string          description: 'A unique identifier of the Provisioning'      post:        summary: 'Activate the consumption reporting procedure'        description: 'Activate the consumption reporting procedure'        responses:          '200':            description: 'the consumption reporting is successfully activate'      get:        summary: 'Retrieve the consumption reporting configuration'        description: 'retrieve the consumption reporting configuration'        responses:          '200':            description: 'a description of the consumption reporting configuration'            content:              application/json:                schema:                  $ref: '#/components/schemas/ConsumptionReportingConfiguration'  externalDocs:    description: TS 26.512    url: 'http://www.3gpp.org/DynaReport/26346.htm'  components:    schemas:      ConsumptionReportingConfiguration:        type: object        properties:          reportingInterval:            $ref: 'https://forge.etsi.org/rep/3GPP/5G\_APIs/blob/master/TS29122\_CommonData.yaml#/components/schemas/DurationSec'          samplePercentage:            type: number            format: float            minimum: 0.0            maximum: 100.0          locationType:            $ref: '#/components/schemas/Geo'    securitySchemes:      m1d\_auth:        type: oauth2        flows:          authorizationCode:            authorizationUrl: https://www.3gpp.org/3gpp-m1d/v1/authorize            tokenUrl: https://www.3gpp.org/3gpp-m1d/v1/token            scopes:              read: Grants read access              write: Grants write access              admin: Grants access to admin operations    links: {}    callbacks: {}  security:  - m1d\_auth: [] |

## C.3.7 MetricsReportingProvisioning API

|  |
| --- |
|  |

## C.3.8 PolicyTemplatesProvisioning API

|  |
| --- |
| openapi: 3.0.0  servers:    - url: '{apiRoot}/3gpp-m1/v1'      variables:        apiRoot:          default: https://example.com          description: apiRoot as defined in clause 4.4 of 3GPP TS 29.501  info:    description: Documentation of the 3GPP M1 Policy Template    version: 1.0.0    title: 3GPP M1 Policy Template interface  tags:    - name: 3GPP TS 26.512      description: 5G Media Provisioning Interface M1 Provisioning Interface      externalDocs:        description: Find out more        url: 'http://www.3gpp.org'  paths:    /provisioning-sessions/{provisioningSessionId}/policy-templates:      parameters:        - name: provisioningSessionId          in: path          required: true          schema:            type: string          description: 'A unique identifier of the Provisioning Session'      post:        summary: 'Create a new Policy Template'        description: 'create a new Policy Template'        responses:          '201':            description: 'the newly created Policy Template'            content:              application/json:                schema:                  $ref: '#/components/schemas/PolicyTemplate'    /provisioning-sessions/{provisioningSessionId}/policy-templates/{policyTemplateId}:      parameters:        - name: provisioningSessionId          in: path          required: true          schema:            type: string          description: 'A unique identifier of the Provisioning Session'        - name: policyTemplateId          in: path          required: true          schema:            type: string          description: 'A unique identifier of the Policy Template'      get:        summary: 'retrieve a description of the Policy Template'        description: 'retrieve a description of the Policy Template'        responses:          '200':            description: 'a description of the Policy Template'            content:              application/json:                schema:                  $ref: '#/components/schemas/PolicyTemplate'      put:        summary: 'modify the configuration of a Policy Template'        description: ''        requestBody:          content:            application/json:              schema:                $ref: '#/components/schemas/PolicyTemplate'        responses:          '200':            description: 'update a policy template'            content:              application/json:                schema:                  $ref: '#/components/schemas/PolicyTemplate'      delete:        summary: 'delete a Policy Template'        description: 'delete a Policy Template'        responses:          '200':            description: 'a Policy Template is deleted'  externalDocs:    description: TS 26.512    url: 'http://www.3gpp.org/DynaReport/26512.htm'  components:    securitySchemes:      m1d\_auth:        type: oauth2        flows:          authorizationCode:            authorizationUrl: https://www.3gpp.org/3gpp-m1d/v1/authorize            tokenUrl: https://www.3gpp.org/3gpp-m1d/v1/token            scopes:              read: Grants read access              write: Grants write access              admin: Grants access to admin operations    links: {}    callbacks: {}  security:  - m1d\_auth: [] |

|  |
| --- |
| **Fourth Change** |

# C.4 OpenAPI representation of the M5 APIs

## C.4.1 ServiceAccessInformation API

|  |
| --- |
| openapi: 3.0.0  info:    description: Documentation of the 3GPP M5 Media Session Handling API to aquire Service Access Information    version: "1.0.0"    title: M5 Media Session Handling to aquire Service Access Information.    contact:      email: Thorsten.Lohmar@ericsson.com    license:      name: Apache 2.0      url: 'http://www.apache.org/licenses/LICENSE-2.0.html'  servers:    - url: '{apiRoot}/3gpp-m5d/v1/service-access-information'      variables:        apiRoot:          default: https://example.com          description: apiRoot as defined in subclause 4.4.1 of 3GPP TS 29.501.  paths:    /{provisioningSessionId}/:      get:        operationId: 'ServiceAccessInformation\_Get'        tags:          - ServiceAccessInformation        parameters:          - name: provisioningSessionId            description: string identifying the service access information resource            in: path            required: true            schema:              type: string        responses:          '201':            description: 'NA Session resource is created'            headers:              Location:                description: 'Contains the URI of the newly created NA Sessionresource'                required: true                schema:                  type: string            content:              application/json:                schema:                    $ref: '#/components/schemas/ServiceAccessInformationResource'          '400':            description: 'invalid input, object invalid'  components:    schemas:      ServiceAccessInformationResource:        type: object        required:        - provisioningSessionId        - provisioningSessionType        properties:          provisioningSessionId:            type: string          provisioningSessionType:                  $ref: 'TS26512\_CommonTypes.yaml#/components/schemas/ProvisioningSessionType'          StreamingAccess:            type: object            properties:              mediaPlayerEntry:                type: string                format: uri          ClientConsumptionReportingConfiguration:            type: object            required:              - serverAddresses              - locationReporting              - samplePercentage            properties:              reportingInterval:                  $ref: 'TS26512\_CommonTypes.yaml#/components/schemas/DurationSec'              serverAddresses:                  $ref: '#/components/schemas/ServerAddresses'              locationReporting:                type: boolean              samplePercentage:                  $ref: 'TS26512\_CommonTypes.yaml#/components/schemas/Percentage'          DynamicPolicyInvocationConfiguration:            type: object            required:              - serverAddresses              - validPolicyTemplateIds              - sdfMethods            properties:              serverAddresses:                  $ref: '#/components/schemas/ServerAddresses'              validPolicyTemplateIds:                type: array                items:                  type: string              sdfMethods:                type: array                items:                  $ref: 'TS26512\_CommonTypes.yaml#/components/schemas/SdfMethods'              externalReferences:                type: array                items:                  type: string          ClientMetricsReportingConfiguration:            type: array            items:              type: object              required:              - serverAddresses              - samplePercentage              - urlFilters              - metrics              properties:                serverAddresses:                    $ref: '#/components/schemas/ServerAddresses'                dataNetworkName:                  type: string                reportingInterval:                    $ref: 'TS26512\_CommonTypes.yaml#/components/schemas/DurationSec'                samplePercentage:                    $ref: 'TS26512\_CommonTypes.yaml#/components/schemas/Percentage'                urlFilters:                  type: array                  items:                    type: string                metrics:                  type: array                  items:                    type: string          NetworkAssistanceConfiguration:            type: object            required:              - serverAddress            properties:              serverAddresses:                  $ref: '#/components/schemas/ServerAddresses'  # Common Data Type (26.512)      ServerAddresses:        type: array        items:          type: string          format: uri |

## C.4.2 ConsumptionReporting API

|  |
| --- |
| openapi: 3.0.0  info:    description: Documentation of the 3GPP M5 Media Session Handling API    version: "1.0.0"    title: M5 Media Session Handling    contact:      email: Thorsten.Lohmar@ericsson.com    license:      name: Apache 2.0      url: 'http://www.apache.org/licenses/LICENSE-2.0.html'  servers:    - url: '{apiRoot}/3gpp-m5d/v1/consumption-reporting/{aspId}'      variables:        apiRoot:          default: https://example.com          description: apiRoot as defined in subclause 4.4.1 of 3GPP TS 29.501.        aspId:          default: MyAsp          description:  as defined 3GPP TS 26.512.  tags:    - name: 3GPP TS 26.512      description: 5G Media Session Handling API  paths:    /:      post:        summary: Upload a consumption report        requestBody:          description: Upload a consumption report.          required: true          content:            application/json:              schema:                $ref: '#/components/schemas/ConsumptionReport'        responses:          '201':            description: 'A Consumption report is uploaded'  components:    schemas:      ConsumptionReport :        type: object        required:          - mediaPlayerEntry          - reportingClientId          - consumptionReportingUnits        properties:          mediaPlayerEntry:            type: string          reportingClientId:            type: string          consumptionReportingUnits:            type: array            items:              $ref: '#/components/schemas/ConsumptionReportingUnit'      ConsumptionReportingUnit:        type: object        properties:          mediaConsumed:            type: string          startTime:              $ref: 'TS26512\_CommonTypes.yaml#/components/schemas/DateTime'          duration:              $ref: 'TS26512\_CommonTypes.yaml#/components/schemas/DurationSec'          Locations:              $ref: 'TS26512\_CommonTypes.yaml#/components/schemas/TypedLocation' |

## C.4.3 MetricReporting API

|  |
| --- |
| openapi: 3.0.0  info:    description: Documentation of the 3GPP M5 Media Session Handling API    version: "1.0.0"    title: M5 Media Session Handling    contact:      email: Thorsten.Lohmar@ericsson.com    license:      name: Apache 2.0      url: 'http://www.apache.org/licenses/LICENSE-2.0.html'  servers:    - url: '{apiRoot}/3gpp-m5d/v1/metrics-reporting/{provisioningSessionId}/{metricsReportingConfigurationId}'      variables:        apiRoot:          default: https://example.com          description: apiRoot as defined in subclause 4.4.1 of 3GPP TS 29.501.        provisioningSessionId:          default: MyProvSess          description:  as defined 3GPP TS 26.512.        metricsReportingConfigurationId:          default: MyQoEConf          description:  as defined 3GPP TS 26.512.  tags:    - name: 3GPP TS 26.512      description: 5G Media Session Handling API  paths:    /:      post:        summary: Upload a metrics report        requestBody:          description: Upload a metrics report.          required: true          content:            application/xml:              schema:                type: string        responses:          '201':            description: 'A metric report is uploaded' |

## C.4.4 DynamicPolicies API

|  |
| --- |
| openapi: 3.0.0  info:    description: Documentation of the 3GPP M5 Media Session Handling API    version: "1.0.0"    title: M5 Media Session Handling    contact:      email: Thorsten.Lohmar@ericsson.com    license:      name: Apache 2.0      url: 'http://www.apache.org/licenses/LICENSE-2.0.html'  servers:    - url: '3gpp-m5/v1/dynamicpolicies/'      variables:        apiRoot:          default: https://example.com          description: apiRoot as defined in subclause 4.4.1 of 3GPP TS 29.501.  tags:    - name: 3GPP TS 26.512      description: 5G Media Session Handling API  paths:    /policies/:      get:        tags:          - DynamicPolicy        summary: Forbidden due to privacy        responses:          '400':            description: bad input parameter      post:        tags:          - DynamicPolicy        summary: Create a new Dynamic Policy resource        responses:          '201':            description: 'dynamic policy resource is created'            content:              application/json:                schema:                  $ref: '#/components/schemas/DynamicPolicy'            headers:              Location:                description: 'Contains the URI of the created Dynamic Policy resource, according to the structure: {apiRoot}/policies/{dynamicPolicyId}'                required: true                schema:                  type: string          '401':            description: Unauthorized    /policies/{dynamicPolicyId}:      get:        tags:          - DynamicPolicy        summary: 'Provides all properties of a dynamic policy resources'        parameters:          - name: dynamicPolicyId            description: 'string identifying the dynamic policy resource'            in: path            required: true            schema:              type: string        responses:          '200':            description: 'Properties of dynamic policy resource'            content:              application/json:                schema:                    $ref: '#/components/schemas/DynamicPolicy'          '400':            description: bad input parameter          '401':            description: Unauthorized      put:        tags:          - DynamicPolicy        summary: Adds / overwrites a dynamic policy resource        description: Adds / overwrites a dynamic policy resource        parameters:          - name: dynamicPolicyId            description: string identifying the dynamic policy resource            in: path            required: true            schema:              type: string        requestBody:          description: Setting policy parameters.          required: true          content:            application/json:              schema:                $ref: '#/components/schemas/DynamicPolicy'        responses:          '201':            description: item created          '400':            description: 'invalid input, object invalid'          '401':            description: Unauthorized          '409':            description: an existing item already exists      patch:        tags:          - DynamicPolicy        summary: modifies a dynamic policy        description: Modifies a dynamic policy resource        parameters:          - name: dynamicPolicyId            description: string identifying the dynamic policy resource            in: path            required: true            schema:              type: string        requestBody:          description: Setting policy parameters.          required: true          content:            application/merge-patch+json:              schema:                $ref: '#/components/schemas/DynamicPolicy'        responses:          '201':            description: item created          '400':            description: 'invalid input, object invalid'          '401':            description: Unauthorized          '409':            description: an existing item already exists      delete:        tags:          - DynamicPolicy        summary: modifies a dynamic policy        description: Deletes a dynamic policy resource        parameters:          - name: dynamicPolicyId            description: string identifying the dynamic policy resource            in: path            required: true            schema:              type: string        responses:          '204':            description: No Content (Successful deletion of the existing subscription)          '400':            description: 'invalid input, object invalid'          '401':            description: Unauthorized          '409':            description: an existing item already exists  components:    schemas:      DynamicPolicy:        type: object        required:          - dynamicPolicyId          - policyTemplateId          - serviceDataFlowDescription          - provisioningSessionId        properties:          dynamicPolicyId:            type: string          policyTemplateId:            type: string          serviceDataFlowDescriptions:            type: array            items:              $ref: 'TS26512\_CommonTypes.yaml#/components/schemas/ServiceDataFlowDescription'          provisioningSessionId:            type: string          qosSpecification:              $ref: 'TS26512\_CommonTypes.yaml#/components/schemas/M5QoSSpecification'          enforcementMethod:            type: string          enforcementBitRate:            type: integer |

## C.4.5 NetworkAssistance API

|  |
| --- |
| openapi: 3.0.0  info:    description: Documentation of the 3GPP M5 Media Session Handling API    version: "1.0.0"    title: M5 Media Session Handling    contact:      email: Thorsten.Lohmar@ericsson.com    license:      name: Apache 2.0      url: 'http://www.apache.org/licenses/LICENSE-2.0.html'  servers:    - url: '{apiRoot}/3gpp-m5d/v1/network-assistance/'      variables:        apiRoot:          default: https://example.com          description: apiRoot as defined in subclause 4.4.1 of 3GPP TS 29.501.  tags:    - name: 3GPP TS 26.512      description: 5G Media Session Handling API  paths:    /:      post:        tags:          - NetworkAssistance        summary: Create a new Network Assistance Session resource        responses:          '201':            description: 'network assistance session resource is created'            content:              application/json:                schema:                  $ref: '#/components/schemas/NetworkAssistanceSession'            headers:              Location:                description: 'Contains the URI of the created Network Assistance Session resource'                required: true                schema:                  type: string          '401':            description: Unauthorized    /{naSessionId}:      get:        tags:          - NetworkAssistance        summary: 'Provides all properties of a Network Assistance Session resources'        parameters:          - name: naSessionId            description: 'string identifying the Network Assistance Session resource'            in: path            required: true            schema:              type: string        responses:          '200':            description: 'Properties of network assistance session resource'            content:              application/json:                schema:                    $ref: '#/components/schemas/NetworkAssistanceSession'          '400':            description: bad input parameter          '401':            description: Unauthorized      put:        tags:          - NetworkAssistance        summary: Adds / overwrites a network assistance session resource        description: Adds / overwrites a network assistance session resource        parameters:          - name: naSessionId            description: string identifying the network assistance session resource            in: path            required: true            schema:              type: string        requestBody:          description: Setting policy parameters.          required: true          content:            application/json:              schema:                $ref: '#/components/schemas/NetworkAssistanceSession'        responses:          '201':            description: item created          '400':            description: 'invalid input, object invalid'          '401':            description: Unauthorized          '409':            description: an existing item already exists      patch:        tags:          - NetworkAssistance        summary: modifies a network assistance session resource        description: Modifies a network assistance session resource        parameters:          - name: naSessionId            description: string identifying the network assistance session resource            in: path            required: true            schema:              type: string        requestBody:          description: Setting policy parameters.          required: true          content:            application/merge-patch+json:              schema:                $ref: '#/components/schemas/NetworkAssistanceSession'        responses:          '201':            description: item created          '400':            description: 'invalid input, object invalid'          '401':            description: Unauthorized          '409':            description: an existing item already exists      delete:        tags:          - NetworkAssistance        summary: deletes a network assistance session resource        description: Deletes a network assistance session resource        parameters:          - name: naSessionId            description: string identifying the network assistance session resource            in: path            required: true            schema:              type: string        responses:          '204':            description: No Content (Successful deletion of the existing resource)          '400':            description: 'invalid input, object invalid'          '401':            description: Unauthorized          '409':            description: an existing item already exists    /{naSessionId}/recommendation:      get:        tags:          - NetworkAssistance        summary: 'Provides all properties of a Network Assistance Session resources'        parameters:          - name: naSessionId            description: 'string identifying the Network Assistance Session resource'            in: path            required: true            schema:              type: string        responses:          '200':            description: 'Properties of network assistance session resource'            content:              application/json:                schema:                    $ref: 'TS26512\_CommonTypes.yaml#/components/schemas/M5QoSSpecification'          '400':            description: bad input parameter          '401':            description: Unauthorized    /{naSessionId}/boostRequest:      post:        tags:          - NetworkAssistance        summary: 'Provides all properties of a Network Assistance Session resources'        parameters:          - name: naSessionId            description: 'string identifying the Network Assistance Session resource'            in: path            required: true            schema:              type: string        responses:          '200':            description: 'Properties of network assistance session resource'            content:              application/json:                schema:                    $ref: 'TS26512\_CommonTypes.yaml#/components/schemas/OperationSuccessResponse'          '400':            description: bad input parameter          '401':            description: Unauthorized  components:    schemas:      NetworkAssistanceSession:        type: object        required:          - naSessionId        properties:          naSessionId:            type: string          serviceDataFlowDescription:            type: array            items:              $ref: 'TS26512\_CommonTypes.yaml#/components/schemas/ServiceDataFlowDescription'          policyTemplateId:            type: string          requestedQoS:              $ref: 'TS26512\_CommonTypes.yaml#/components/schemas/M5QoSSpecification'          recommendedQoS:              $ref: 'TS26512\_CommonTypes.yaml#/components/schemas/M5QoSSpecification'            notficationURL:            type: string |