**3GPP TSG-SA4 Meeting #117-e**S4-220177

**14th – 22nd February 2022**

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| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  | **26.512** | **CR** | **0018** | **rev** |  | **Current version:** | **16.4.0** |  |
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| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* |
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| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network |  | Core Network | **X** |

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| ***Title:***  | CR on OpenAPI and Yaml for EDGE APIs  |
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| ***Source to WG:*** | Qualcomm Incorporated |
| ***Source to TSG:*** | S4 |
|  |  |
| ***Work item code:*** | 5GMS\_EDGE\_3 |  | ***Date:*** | 21st February 2022 |
|  |  |  |  |  |
| ***Category:*** | B |  | ***Release:*** | R |
|  | *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-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)* |
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| ***Reason for change:*** | This CR corrects the version reference in the 5GMS APIs and adds the OpenAPI implementation for the edge resource configuration. |
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| ***Summary of change:*** | Usage of apiVersion instead of concrete versions and OpenAPI implementation of the edge resource configuration in M1 and M5. |
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| ***Consequences if not approved:*** | the OpenAPI definition would be missing |
|  |  |
| ***Clauses affected:*** | 6.1, 7.2.2, 7.3.2, 7.4.2, 7.5.2, 7.6.2, 7.7.2, 7.8.2, 7.9.2, 11.3.2, 11.4.2, 11.5.2, 11.6.2, C.2, C.3.1, C.3.3, C.3.4, C.3.5, C.3.6, C.3.7, C.3.8, C.3.9, C.4.1, C.4.2, C.4.3, C.4.4, C.4.5 |
|  |  |
|  | **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 ...  |
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| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

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| 0th Change |

## 6.1 HTTP resource URIs and paths

The resource URI used in each HTTP request to the API provider shall have the structure defined in subclause 4.4.1 of TS 29.501 [22], i.e.:

{apiRoot}/{apiName}/{apiVersion}/{apiSpecificResourceUriPart}

with the following components:

- {apiRoot} shall be set as described in TS 29.501 [22].

- {apiName}shall be set as defined by the following clauses.

- {apiVersion} shall be set to "v2".

- {apiSpecificResourceUriPart} shall be set as described in the following clauses.

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| 1st Change |

### 7.2.2 Resource structure

The Provisioning Sessions API is accessible through the following URL base path:

{apiRoot}/3gpp-m1/{apiVersion}/provisioning-sessions/

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| 2nd Change |

### 7.3.2 Resource structure

The Server Certificates Provisioning API is accessible through the following URL base path:

{apiRoot}/3gpp-m1/{apiVersion}/provisioning-sessions/{provisioningSessionId}/

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| 3rd Change |

### 7.4.2 Resource structure

The Content Preparation Templates Provisioning API is accessible through the following URL base path:

{apiRoot}/3gpp-m1/{apiVersion}/provisioning-sessions/{provisioningSessionId}/

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| 4th Change |

### 7.5.2 Resource structure

The Content Protocols Discovery API is accessible through the following URL base path:

{apiRoot}/3gpp-m1/{apiVersion}/provisioning-sessions/{provisioningSessionId}/

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| 5th Change |

### 7.6.2 Resource structure

The Content Hosting Provisioning API is accessible through this URL base path:

{apiRoot}/3gpp-m1/{apiVersion}/provisioning-sessions/{provisioningSessionId}/

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| 6th Change |

### 7.7.2 Resource structure

The Consumption Reporting Provisioning API is accessible through the following URL base path:

{apiRoot}/3gpp-m1/{apiVersion}/provisioning-sessions/{provisioningSessionId}/

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| 7th Change |

### 7.8.2 Resource structure

The Metrics Reporting Provisioning API is accessible through the following URL base path:

{apiRoot}/3gpp-m1/{apiVersion}/provisioning-sessions/{provisioningSessionId}/

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| 8th Change |

### 7.9.2 Resource structure

The Policy Template Provisioning API is accessible through the following URL base path:

{apiRoot}/3gpp-m1/{apiVersion}/provisioning-sessions/{provisioningSessionId}/

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| 9th Change |

### 11.3.2 Reporting procedure

Consumption reports shall be submitted to one of the URLs selected from the ClientConsumptionReporting‌Configuration.‌serverAddresses array of the ServiceAccessInformation resource (see clause 11.2.3). The path of the URL should conform to the following general format:

{apiRoot}/3gpp-m5/{apiVersion}/consumption-reporting/{aspId}

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| 10th Change |

### 11.4.2 Reporting procedure

Metrics reports related to a specific metricsReportingConfigurationId shall be submitted to one of the URLs selected from the ClientMetricsReportingConfiguration.serverAddresses array of the ServiceAccessInformation resource (see clause 11.2.3). The path of the URL should conform to the following general format:

{apiRoot}/3gpp-m5/{apiVersion}/metrics-reporting/{provisioningSessionId}/{metricsReportingConfigurationId}

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| 11th Change |

### 11.5.2 Resource structure

The Dynamic Policies API is accessible through the following URL base path:

{apiRoot}/3gpp-m5/{apiVersion}/dynamic-policies/

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| 12th Change |

### 11.6.2 Resource structure

The Network Assistance API is accessible via the following URL base path:

{apiRoot}/3gpp‑m5/{apiVersion}/network-assistance/

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| 13th Change |

# C.2 Data Types applicable to several APIs

For the purpose of referencing entities defined in this clause, it shall be assumed that the OpenAPI definitions below are contained in a physical file named "TS26512\_CommonData.yaml".

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| openapi: 3.0.0info:  title: 5GMS Common Data Types  version: 1.0.0  description: |    5GMS Common Data Types    © 2021, 3GPP Organizational Partners (ARIB, ATIS, CCSA, ETSI, TSDSI, TTA, TTC).    All rights reserved.tags:  - name: 5GMS Common Data Types    description: '5G Media Streaming: Common Data Types'externalDocs:  description: 'TS 26.512 V16.2.0; 5G Media Streaming (5GMS); Protocols'  url: 'https://www.3gpp.org/ftp/Specs/archive/26\_series/26.512/'paths: {}components:  schemas:    #################################    # Clause 6.4.2: Simple data types    #################################    ResourceId:      type: string      description: String chosen by the 5GMS AF to serve as an identifier in a resource URI.    Percentage:      type: number      minimum: 0.0      maximum: 100.0    #DurationSec is defined in TS29571\_CommonData    #DateTime is defined in TS29571\_CommonData    #Uri is defined in TS29571\_CommonData    Url:      type: string      format: uri      description: Uniform Resource Locator, comforming with the URI Generic Syntax specified in IETF RFC 3986.     #####################################    # Clause 6.4.3: Structured data types    #####################################    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          minimum: 0        desLoss:          type: integer          minimum: 0    M1QoSSpecification:      type: object      properties:        qosReference:          type: string        maxBtrUl:          $ref: 'TS29571\_CommonData.yaml#/components/schemas/BitRate'        maxBtrDl:          $ref: 'TS29571\_CommonData.yaml#/components/schemas/BitRate'        maxAuthBtrUl:          $ref: 'TS29571\_CommonData.yaml#/components/schemas/BitRate'        maxAuthBtrDl:          $ref: 'TS29571\_CommonData.yaml#/components/schemas/BitRate'        defPacketLossRateDl:          type: integer          minimum: 0        defPacketLossRateUl:          type: integer          minimum: 0    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'    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:      anyOf:        - type: string          enum: [CGI, ECGI, NCGI]        - type: string          description: >            This string provides forward-compatibility with future            extensions to the enumeration but is not used to encode            content defined in the present version of this API.    SdfMethod:      anyOf:        - type: string          enum: [5\_TUPLE, 2\_TUPLE, TYPE\_OF\_SERVICE\_MARKING, FLOW\_LABEL, DOMAIN\_NAME]        - type: string          description: >            This string provides forward-compatibility with future            extensions to the enumeration but is not used to encode            content defined in the present version of this API.    ProvisioningSessionType:      anyOf:        - type: string          enum: [DOWNLINK, UPLINK]        - type: string          description: >            This string provides forward-compatibility with future            extensions to the enumeration but is not used to encode            content defined in the present version of this API.    EdgeProcessingEligibilityCriteria:      type: object      required:        - serviceDataFlowDescriptions        - ueLocations        - timeWindow        - appRequest      properties:        serviceDataFlowDescriptions:          type: array          items:            $ref: '#/components/schemas/ServiceDataFlowDescription'        ueLocations:          type: array          items:            $ref: 'TS29122\_CommonData.yaml#/components/schemas/LocationArea5G'        timeWindow:          type: array          items:            $ref: 'TS29122\_CommonData.yaml#/components/schemas/TimeWindow'        appRequest:          type: boolean |

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| 14th Change |

## C.3.1 M1\_ProvisioningSessions API

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| openapi: 3.0.0info:  title: M1\_ProvisioningSessions  version: 1.0.0  description: |    5GMS AF M1 Provisioning Sessions API    © 2021, 3GPP Organizational Partners (ARIB, ATIS, CCSA, ETSI, TSDSI, TTA, TTC).    All rights reserved.tags:  - name: M1\_ProvisioningSessions    description: '5G Media Streaming: Provisioning (M1) APIs: Provisioning Sessions'externalDocs:  description: 'TS 26.512 V16.2.0; 5G Media Streaming (5GMS); Protocols'  url: 'https://www.3gpp.org/ftp/Specs/archive/26\_series/26.512/'servers:  - url: '{apiRoot}/3gpp-m1/{apiVersion}'    variables:      apiRoot:        default: https://example.com        description: See 3GPP TS 29.512 clause 6.1.paths:  /provisioning-sessions:    post:      operationId: createProvisioningSession      summary: 'Create a new Provisioning Session'      responses:        '201':          description: 'Provisioning Session Created'          headers:            Location:              description: 'URL including the resource identifier of the newly created Provisioning Session.'              required: true              schema:                $ref: 'TS26512\_CommonData.yaml#/components/schemas/Url'          content:            application/json:              schema:                $ref: '#/components/schemas/ProvisioningSession'  /provisioning-sessions/{provisioningSessionId}:    parameters:        - name: provisioningSessionId          in: path          required: true          schema:            $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'          description: 'The resource identifier of an existing Provisioning Session.'    get:      operationId: getProvisioningSessionById      summary: 'Retrieve an existing Provisioning Session'      responses:        '200':          description: 'Success'          content:            application/json:              schema:                $ref: '#/components/schemas/ProvisioningSession'    delete:      operationId: destroyProvisioningSession      summary: 'Destroy an existing Provisioning Session'      responses:        '204':          description: 'Provisioning Session Destroyed'          # No Contentcomponents:  schemas:    ProvisioningSession:      type: object      description: "A representation of a Provisioning Session."      required:        - provisioningSessionId        - provisioningSessionType        - contentProtocols      properties:        provisioningSessionId:          $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'        provisioningSessionType:          $ref: 'TS26512\_CommonData.yaml#/components/schemas/ProvisioningSessionType'        aspId:          $ref: 'TS29514\_Npcf\_PolicyAuthorization.yaml#/components/schemas/AspId'        serverCertificateIds:          type: array          items:            $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'          minItems: 1        contentPreparationTemplateIds:          type: array          items:            $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'          minItems: 1        metricsReportingConfigurationIds:          type: array          items:            $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'          minItems: 1        policyTemplateIds:          type: array          items:            $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'          minItems: 1 |

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| 15th Change |

## C.3.2 M1\_ServerCertificatesProvisioning API

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| openapi: 3.0.0info:  title: M1\_ServerCertificatesProvisioning  version: 1.0.0  description: |    5GMS AF M1 Server Certificates Provisioning API    © 2021, 3GPP Organizational Partners (ARIB, ATIS, CCSA, ETSI, TSDSI, TTA, TTC).    All rights reserved.tags:  - name: M1\_ServerCertificatesProvisioning    description: '5G Media Streaming: Provisioning (M1) APIs: Server Certificates Provisioning'externalDocs:  description: 'TS 26.512 V16.2.0; 5G Media Streaming (5GMS); Protocols'  url: 'https://www.3gpp.org/ftp/Specs/archive/26\_series/26.512/'servers:  - url: '{apiRoot}/3gpp-m1/{apiVersion}'    variables:      apiRoot:        default: https://example.com        description: See 3GPP TS 29.512 clause 6.1.paths:  /provisioning-sessions/{provisioningSessionId}/certificates:    parameters:      - name: provisioningSessionId        in: path        required: true        schema:          $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'        description: The resource identifier of an existing Provisioning Session.'    post:      operationId: createOrReserveServerCertificate      summary: 'Create or reserve a Service Certificate resource'      description: 'Without the optional csr query parameter, an X.509 certificate is generated and this is returned. If the csr query parameter is present, a Certificate Signing Request is instead generated and returned, allowing the X.509 certificate to be generated by the invoker and later uploaded.'      parameters:        - in: query          name: csr          schema:             type: string          description: 'When present, return a Certificate Signing Request instead of generating an X.509 certificate'      responses:        '200':          description: 'Server Certificate Created'          headers:            Location:               description: 'URL of the newly created Server Certificate resource'              required: true              schema:                $ref: 'TS26512\_CommonData.yaml#/components/schemas/Url'          content:            'application/x-pem-file':              schema:                type: string    /provisioning-sessions/{provisioningSessionId}/certificates/{certificateId}:    parameters:      - name: provisioningSessionId        in: path        required: true        schema:          $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'        description: The resource identifier of an existing Provisioning Session.'      - name: certificateId        in: path        required: true        schema:          $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'        description: 'The resource identifier of an existing Server Certificate'    put:      operationId: uploadServerCertificate      summary: "Upload the X.509 certificate for a previously reserved Server Certificate resource"      requestBody:        required: true        content:          application/x-pem-file:            schema:              type: string      responses:        '204':          description: 'Server Certificate Updated'    get:      operationId: retrieveServerCertificate      summary: 'Retrieve the X.509 certificate representation of the specified Server Certificate resource'      responses:        '200':          description: 'Success'          content:            'application/x-pem-file':              schema:                type: string        '204':          description: 'Awaiting Upload'        '404':          description: 'Not Found'    delete:      operationId: destroyServerCertificate      summary: 'Destroy an existing Server Certificate resource'      responses:        '204':          description: 'Server Certificate Destroyed' |

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| 16th Change |

## C.3.3 M1\_ContentPreparationTemplatesProvisioning API

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| openapi: 3.0.0info:  title: M1\_ContentPreparationTemplatesProvisioning  version: 1.0.0  description: |    5GMS AF M1 Content Preparation Templates Provisioning API    © 2021, 3GPP Organizational Partners (ARIB, ATIS, CCSA, ETSI, TSDSI, TTA, TTC).    All rights reserved.tags:  - name: M1\_ContentPreparationTemplatesProvisioning    description: '5G Media Streaming: Provisioning (M1) APIs: Content Preparation Templates Provisioning'externalDocs:  description: 'TS 26.512 V16.2.0; 5G Media Streaming (5GMS); Protocols'  url: 'https://www.3gpp.org/ftp/Specs/archive/26\_series/26.512/'servers:  - url: '{apiRoot}/3gpp-m1/{apiVersion}'    variables:      apiRoot:        default: https://example.com        description: See 3GPP TS 29.512 clause 6.1.paths:  /provisioning-sessions/{provisioningSessionId}/content-preparation-templates:    parameters:      - name: provisioningSessionId        in: path        required: true        schema:           $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'        description: 'The resource identifier of an existing Provisioning Session.'    post:      operationId: createContentPreparationTemplate      summary: 'Create (and optionally upload) a new Content Preparation Template for the specified Provisioning Session'      requestBody:        description: 'A Content Preparation Template of any type'        required: true        content:          '\*/\*':            schema:              type: string      responses:        '201':          description: 'Content Preparation Template Created'          headers:            Location:              description: 'URL of the newly created Content Preparation Template.'              required: true              schema:                $ref: 'TS26512\_CommonData.yaml#/components/schemas/Url'  /provisioning-sessions/{provisioningSessionId}/content-preparation-templates/{contentPreparationTemplateId}:    parameters:      - name: provisioningSessionId        in: path        required: true        schema:           $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'        description: 'The resource identifier of an existing Provisioning Session.'      - name: contentPreparationTemplateId        in: path        required: true        schema:           $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'        description: 'The resource identifier of an existing Content Preparation Template.'    get:      operationId: retrieveContentPreparationTemplate      summary: 'Retrieve the specified Content Preparation Template of the specified Provisioning Session'      responses:        '200':          description: 'Success'          content:            '\*/\*':              schema:                type: string    put:      operationId: updateContentPreparationTemplate      summary: 'Update the specified Content Preparation Template for the specified Provisioning Session'      requestBody:        description: 'A Content Preparation Template of any type'        required: true        content:          '\*/\*':            schema:              type: string      responses:        '204':          description: 'Updated Content Preparation Template'        '404':          description: 'Not Found'    patch:      operationId: patchContentPreparationTemplate      summary: 'Patch the specified Content Preparation Template for the specified Provisioning Session'      requestBody:        description: 'A Content Preparation Template patch of any type'        required: true        content:          application/merge-patch+json:            schema:              type: string          application/json-patch+json:            schema:              type: string      responses:        '200':          description: 'Patched Content Preparation Templates'          content:            '\*/\*':              schema:                type: string        '404':          description: 'Not Found'    delete:      operationId: destroyContentPreparationTemplate      summary: 'Destroy the specified Content Preparation Template of the specified Provisioning Session'      responses:        '204':          description: 'Destroyed Content Preparation Template'        '404':          description: 'Not Found' |

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| 17th Change |

## C.3.4 M1\_ContentProtocolsDiscovery API

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| openapi: 3.0.0info:  title: M1\_ContentProtocolsDiscovery  version: 1.0.0  description: |    5GMS AF M1 Content Protocols Discovery API    © 2021, 3GPP Organizational Partners (ARIB, ATIS, CCSA, ETSI, TSDSI, TTA, TTC).    All rights reserved.tags:  - name: M1\_ContentDiscovery    description: '5G Media Streaming: Provisioning (M1) APIs: Content Protocols Discovery'externalDocs:  description: 'TS 26.512 V16.2.0; 5G Media Streaming (5GMS); Protocols'  url: 'https://www.3gpp.org/ftp/Specs/archive/26\_series/26.512/'servers:  - url: '{apiRoot}/3gpp-m1/{apiVersion}'    variables:      apiRoot:        default: https://example.com        description: See 3GPP TS 29.512 clause 6.1.paths:  /provisioning-sessions/{provisioningSessionId}/protocols:    parameters:      - name: provisioningSessionId        in: path        required: true        schema:           $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'        description: 'The resource identifier of an existing Provisioning Session.'    get:      operationId: retrieveContentProtocols      summary: 'Retrieve the set of Content Protocols supported by the specified Provisioning Session'      responses:        '200':          description: 'Success'          content:            application/json:              schema:                $ref: '#/components/schemas/ContentProtocols'components:  schemas:    ContentProtocolDescriptor:      type: object      required:        - termIdentifier      properties:        termIdentifier:          $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uri'        descriptionLocator:          $ref: 'TS26512\_CommonData.yaml#/components/schemas/Url'    ContentProtocols:      type: object      properties:        downlinkIngestProtocols:          type: array          items:            $ref: '#/components/schemas/ContentProtocolDescriptor'          minItems: 1        uplinkEgestProtocols:          type: array          items:            $ref: '#/components/schemas/ContentProtocolDescriptor'          minItems: 1        geoFencingLocatorTypes:          type: array          items:            $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uri'          minItems: 1 |

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| 18th Change |

## C.3.5 M1\_ContentHostingProvisioning API

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| openapi: 3.0.0info:  title: M1\_ContentHostingProvisioning  version: 1.0.0  description: |    5GMS AF M1 Content Hosting Provisioning API    © 2021, 3GPP Organizational Partners (ARIB, ATIS, CCSA, ETSI, TSDSI, TTA, TTC).    All rights reserved.tags:  - name: M1\_ContentHostingProvisioning    description: '5G Media Streaming: Provisioning (M1) APIs: Content Hosting Provisioning'externalDocs:  description: 'TS 26.512 V16.2.0; 5G Media Streaming (5GMS); Protocols'  url: 'https://www.3gpp.org/ftp/Specs/archive/26\_series/26.512/'servers:  - url: '{apiRoot}/3gpp-m1/{apiVersion}'    variables:      apiRoot:        default: https://example.com        description: See 3GPP TS 29.512 clause 6.1.paths:  /provisioning-sessions/{provisioningSessionId}/content-hosting-configuration:    parameters:      - name: provisioningSessionId        in: path        required: true        schema:          $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'        description: 'The resource identifier of an existing Provisioning Session.'    post:      operationId: createContentHostingConfiguration      summary: 'Create (and optionally upload) the Content Hosting Configuration for the specified Provisioning Session'      requestBody:        description: 'A JSON representation of a Content Hosting Configuration'        required: true        content:          application/json:            schema:              $ref: '#/components/schemas/ContentHostingConfiguration'      responses:        '201':          description: 'Content Hosting Configuration Created'          headers:            Location:              description: 'URL of the newly created Content Hosting Configuration (same as request URL).'              required: true              schema:                $ref: 'TS26512\_CommonData.yaml#/components/schemas/Url'    get:      operationId: retrieveContentHostingConfiguration      summary: 'Retrieve the Content Hosting Configuration of the specified Provisioning Session'      responses:        '200':          description: 'Success'          content:            application/json:              schema:                $ref: '#/components/schemas/ContentHostingConfiguration'        '404':          description: 'Not Found'    put:      operationId: updateContentHostingConfiguration      summary: 'Update the Content Hosting Configuration for the specified Provisioning Session'      requestBody:        description: 'A JSON representation of a Content Hosting Configuration'        required: true        content:          application/json:            schema:              $ref: '#/components/schemas/ContentHostingConfiguration'      responses:        '204':          description: 'Updated Content Hosting Configuration'        '404':          description: 'Not Found'    patch:      operationId: patchContentHostingConfiguration      summary: 'Patch the Content Hosting Configuration for the specified Provisioning Session'      requestBody:        description: 'A JSON representation of a Content Hosting Configuration'        required: true        content:          application/merge-patch+json:            schema:              $ref: '#/components/schemas/ContentHostingConfiguration'          application/json-patch+json:            schema:              $ref: '#/components/schemas/ContentHostingConfiguration'      responses:        '200':          description: 'Patched Content Hosting Configuration'          content:            application/json:              schema:                $ref: '#/components/schemas/ContentHostingConfiguration'        '404':          description: 'Not Found'    delete:      operationId: destroyContentHostingConfiguration      summary: 'Destroy the current Content Hosting Configuration of the specified Provisioning Session'      responses:        '204':          description: 'Destroyed Content Hosting Configuration'        '404':          description: 'Not Found'            /provisioning-sessions/{provisioningSessionId}/content-hosting-configuration/purge:    parameters:        - name: provisioningSessionId          in: path          required: true          schema:            $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'          description: A unique identifier of the Provisioning    post:      operationId: purgeContentHostingCache      summary: 'Purge the content of the cache for the Content Hosting Configuration of the specified Provisioning Session'      requestBody:        description: 'The regular expression pattern for resources to purge from the cache'        required: true        content:          application/x-www-form-urlencoded:            schema:              properties:                pattern:                   description: 'Keyword'                  type: string                value:                  description: 'The regular expression'                  type: string      responses:        '200':          description: 'Content Purged'components:  schemas:    IngestConfiguration:      type: object      properties:        path:          type: string        pull:          type: boolean        protocol:          $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uri'        entryPoint:          $ref: 'TS26512\_CommonData.yaml#/components/schemas/Url'    PathRewriteRule:      type: object      required:        - requestPattern        - mappedPath      properties:        requestPattern:          type: string        mappedPath:          type: string    CachingConfiguration:      type: object      properties:        urlPatternFilter:          type: string        CachingDirectives:          type: object          required:            - urlPatternFilter            - noCache          properties:            statusCodeFilters:              type: array              items:                type: integer            noCache:              type: boolean            maxAge:              type: integer              format: int32    DistributionConfiguration:      type: object      required:        - canonicalDomainName        - domainNameAlias      properties:        contentPreparationTemplateId:          $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'        canonicalDomainName:          type: string        domainNameAlias:          type: string        pathRewriteRules:          type: array          items:            $ref: '#/components/schemas/PathRewriteRule'        cachingConfigurations:          type: array          items:            $ref: '#/components/schemas/CachingConfiguration'        GeoFencing:          type: object          required:            - locatorType            - locators          properties:            locatorType:              $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uri'            locators:              type: array              items:                 type: string                description: 'Format of individual locators depends on the locatorType.'              minItems: 1        UrlSignature:          type: object          required:            - urlPattern            - tokenName            - passphraseName            - passphrase            - tokenExpiryName            - useIPAddress          properties:            urlPattern:              type: string            tokenName:              type: string            passphraseName:              type: string            passphrase:              type: string            tokenExpiryName:              type: string            useIPAddress:              type: boolean            ipAddressName:              type: string        certificateId:          $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'    # Schema for the resource itself    ContentHostingConfiguration:      type: object      required:        - name        - ingestConfiguration        - distributionConfigurations      properties:        name:          type: string        ingestConfiguration:          $ref: '#/components/schemas/IngestConfiguration'        distributionConfigurations:          type: array          items:            $ref: '#/components/schemas/DistributionConfiguration' 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| 19th Change |

## C.3.6 M1\_ConsumptionReportingProvisioning API

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| openapi: 3.0.0info:  title: M1\_ConsumptionReportingProvisioning  version: 1.0.0  description: |    5GMS AF M1 Consumption Reporting Provisioning API    © 2021, 3GPP Organizational Partners (ARIB, ATIS, CCSA, ETSI, TSDSI, TTA, TTC).    All rights reserved.tags:  - name: M1\_ConsumptionReportingProvisioning    description: '5G Media Streaming: Provisioning (M1) APIs: Consumption Reporting Provisioning'externalDocs:  description: 'TS 26.512 V16.2.0; 5G Media Streaming (5GMS); Protocols'  url: 'https://www.3gpp.org/ftp/Specs/archive/26\_series/26.512/'servers:  - url: '{apiRoot}/3gpp-m1/{apiVersion}'    variables:      apiRoot:        default: https://example.com        description: See 3GPP TS 29.512 clause 6.1.paths:  /provisioning-sessions/{provisioningSessionId}/consumption-reporting-configuration:    parameters:      - name: provisioningSessionId        in: path        required: true        schema:           $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'        description: 'The resource identifier of an existing Provisioning Session.'    post:      operationId: activateConsumptionReporting      summary: 'Activate the consumption reporting procedure for the specified Provisioning Session by providing the Consumption Reporting Configuration'      requestBody:        description: 'A JSON representation of a Consumption Reporting Configuration'        required: true        content:          application/json:            schema:              $ref: '#/components/schemas/ConsumptionReportingConfiguration'      responses:        '201':          description: 'Consumption Reporting Configuration Created'          headers:            Location:              description: 'URL of the newly created Consumption Reporting Configuration (same as request URL).'              required: true              schema:                $ref: 'TS26512\_CommonData.yaml#/components/schemas/Url'    get:      operationId: retrieveConsumptionReportingConfiguration      summary: 'Retrieve the Consumption Reporting Configuration of the specified Provisioning Session'      responses:        '200':          description: 'Success'          content:            application/json:              schema:                $ref: '#/components/schemas/ConsumptionReportingConfiguration'    put:      operationId: updateConsumptionReportingConfiguration      summary: 'Update the Consumption Reporting Configuration for the specified Provisioning Session'      requestBody:        description: 'A JSON representation of a Consumption Reporting Configuration'        required: true        content:          application/json:            schema:              $ref: '#/components/schemas/ConsumptionReportingConfiguration'      responses:        '204':          description: 'Updated Consumption Reporting Configuration'        '404':          description: 'Not Found'    patch:      operationId: patchConsumptionReportingConfiguration      summary: 'Patch the Consumption Reporting Configuration for the specified Provisioning Session'      requestBody:        description: 'A JSON representation of a Consumption Reporting Configuration'        required: true        content:          application/merge-patch+json:            schema:              $ref: '#/components/schemas/ConsumptionReportingConfiguration'          application/json-patch+json:            schema:              $ref: '#/components/schemas/ConsumptionReportingConfiguration'      responses:        '200':          description: 'Patched Consumption Reporting Configuration'          content:            application/json:              schema:                $ref: '#/components/schemas/ConsumptionReportingConfiguration'        '404':          description: 'Not Found'    delete:      operationId: destroyConsumptionReportingConfiguration      summary: 'Destroy the current Consumption Reporting Configuration of the specified Provisioning Session'      responses:        '204':          description: 'Destroyed Consumption Reporting Configuration'        '404':          description: 'Not Found'    components:  schemas:    ConsumptionReportingConfiguration:      type: object      properties:        reportingInterval:          $ref: 'TS29571\_CommonData.yaml#/components/schemas/DurationSec'        samplePercentage:          $ref: 'TS26512\_CommonData.yaml#/components/schemas/Percentage'        locationReporting:          type: boolean |

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| 20th Change |

## C.3.7 M1\_MetricsReportingProvisioning API

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| openapi: 3.0.0info:  title: M1\_MetricsReportingProvisioning  version: 1.0.0  description: |    5GMS AF M1 Metrics Reporting Provisioning API    © 2021, 3GPP Organizational Partners (ARIB, ATIS, CCSA, ETSI, TSDSI, TTA, TTC).    All rights reserved.tags:  - name: M1\_MetricsReportingProvisioning    description: '5G Media Streaming: Provisioning (M1) APIs: Metrics Reporting Provisioning'externalDocs:  description: 'TS 26.512 V16.2.0; 5G Media Streaming (5GMS); Protocols'  url: 'https://www.3gpp.org/ftp/Specs/archive/26\_series/26.512/'servers:  - url: '{apiRoot}/3gpp-m1/{apiVersion}'    variables:      apiRoot:        default: https://example.com        description: See 3GPP TS 29.512 clause 6.1.paths:  /provisioning-sessions/{provisioningSessionId}/metrics-reporting-configurations:    parameters:      - name: provisioningSessionId        in: path        required: true        schema:           $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'        description: 'The resource identifier of an existing Provisioning Session.'    post:      operationId: activateMetricsReporting      summary: 'Activate the Metrics reporting procedure for the specified Provisioning Session by providing the Metrics Reporting Configuration'      requestBody:        description: 'A JSON representation of a Metrics Reporting Configuration'        required: true        content:          application/json:            schema:              $ref: '#/components/schemas/MetricsReportingConfiguration'      responses:        '201':          description: 'Metrics Reporting Configuration Created'          headers:            Location:              description: 'URL of the newly created Metrics Reporting Configuration (same as request URL).'              required: true              schema:                $ref: 'TS26512\_CommonData.yaml#/components/schemas/Url'  /provisioning-sessions/{provisioningSessionId}/metrics-reporting-configurations/{metricsReportingConfigurationId}:    parameters:      - name: provisioningSessionId        in: path        required: true        schema:           $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'        description: 'The resource identifier of an existing Provisioning Session.'      - name: metricsReportingConfigurationId        in: path        required: true        schema:           $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'        description: 'The resource identifier of a Metrics Reporting Configuration.'    get:      operationId: retrieveMetricsReportingConfiguration      summary: 'Retrieve the specified Metrics Reporting Configuration of the specified Provisioning Session'      responses:        '200':          description: 'Success'          content:            application/json:              schema:                $ref: '#/components/schemas/MetricsReportingConfiguration'    put:      operationId: updateMetricsReportingConfiguration      summary: 'Update the specified Metrics Reporting Configuration for the specified Provisioning Session'      requestBody:        description: 'A JSON representation of a Metrics Reporting Configuration'        required: true        content:          application/json:            schema:              $ref: '#/components/schemas/MetricsReportingConfiguration'      responses:        '204':          description: 'Updated Metrics Reporting Configuration'        '404':          description: 'Not Found'    patch:      operationId: patchMetricsReportingConfiguration      summary: 'Patch the specified Metrics Reporting Configuration for the specified Provisioning Session'      requestBody:        description: 'A JSON representation of a Metrics Reporting Configuration'        required: true        content:          application/merge-patch+json:            schema:              $ref: '#/components/schemas/MetricsReportingConfiguration'          application/json-patch+json:            schema:              $ref: '#/components/schemas/MetricsReportingConfiguration'      responses:        '200':          description: 'Patched Metrics Reporting Configuration'          content:            application/json:              schema:                $ref: '#/components/schemas/MetricsReportingConfiguration'        '404':          description: 'Not Found'    delete:      operationId: destroyMetricsReportingConfiguration      summary: 'Destroy the specified Metrics Reporting Configuration of the specified Provisioning Session'      responses:        '204':          description: 'Destroyed Metrics Reporting Configuration'        '404':          description: 'Not Found'    components:  schemas:    MetricsReportingConfiguration:      type: object      required:        - metricsReportingConfigurationId        - scheme      properties:        metricsReportingConfigurationId:          $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'        scheme:          $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uri'        dataNetworkName:          $ref: 'TS29571\_CommonData.yaml#/components/schemas/Dnn'        reportingInterval:          $ref: 'TS29571\_CommonData.yaml#/components/schemas/DurationSec'        samplePercentage:          $ref: 'TS26512\_CommonData.yaml#/components/schemas/Percentage'        urlFilters:          type: array          items:            type: string          minItems: 1        metrics:          type: array          items:            type: string          minItems: 1 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| 21st Change |

## C.3.8 M1\_PolicyTemplatesProvisioning API

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| openapi: 3.0.0info:  title: M1\_PolicyTemplatesProvisioning  version: 1.0.0  description: |    5GMS AF M1 Policy Templates Provisioning API    © 2021, 3GPP Organizational Partners (ARIB, ATIS, CCSA, ETSI, TSDSI, TTA, TTC).    All rights reserved.tags:  - name: M1\_PolicyTemplatesProvisioning    description: '5G Media Streaming: Provisioning (M1) APIs: Policy Templates Provisioning'externalDocs:  description: 'TS 26.512 V16.2.0; 5G Media Streaming (5GMS); Protocols'  url: 'https://www.3gpp.org/ftp/Specs/archive/26\_series/26.512/'servers:  - url: '{apiRoot}/3gpp-m1/{apiVersion}'    variables:      apiRoot:        default: https://example.com        description: See 3GPP TS 29.512 clause 6.1.paths:  /provisioning-sessions/{provisioningSessionId}/policy-templates:    parameters:      - name: provisioningSessionId        in: path        required: true        schema:          $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'        description: 'The resource identifier of an existing Provisioning Session.'    post:      operationId: createPolicyTemplate      summary: 'Create (and optionally upload) a new Policy Template'      requestBody:        description: 'A JSON representation of a Policy Template'        required: true        content:          application/json:            schema:              $ref: '#/components/schemas/PolicyTemplate'      responses:        '201':          description: 'Policy Template Created'          headers:            Location:              description: 'URL of the newly created Policy Template resource.'              required: true              schema:                $ref: 'TS26512\_CommonData.yaml#/components/schemas/Url'   /provisioning-sessions/{provisioningSessionId}/policy-templates/{policyTemplateId}:    parameters:      - name: provisioningSessionId        in: path        required: true        schema:          $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'        description: 'A unique identifier of the Provisioning Session.'      - name: policyTemplateId        in: path        required: true        schema:          $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'        description: 'A resource identifier of a Policy Template.'    get:      operationId: retrievePolicyTemplate      summary: 'Retrieve a representation of an existing Policy Template in the specified Provisioning Session'      responses:        '200':          description: 'Success'          content:            application/json:              schema:                $ref: '#/components/schemas/PolicyTemplate'        '404':          description: 'Not Found'    put:      operationId: updatePolicyTemplate      summary: 'Update a Policy Template for the specified Provisioning Session'      requestBody:        description: 'A JSON representation of a Policy Template'        required: true        content:          application/json:            schema:              $ref: '#/components/schemas/PolicyTemplate'      responses:        '204':          description: 'Updated Policy Template'        '404':          description: 'Not Found'    patch:      operationId: patchPolicyTemplate      summary: 'Patch the Policy Template for the specified Provisioning Session'      requestBody:        description: 'A JSON representation of a Policy Template'        required: true        content:          application/merge-patch+json:            schema:              $ref: '#/components/schemas/PolicyTemplate'          application/json-patch+json:            schema:              $ref: '#/components/schemas/PolicyTemplate'      responses:        '200':          description: 'Patched Content Hosting Configuration'          content:            application/json:              schema:                $ref: '#/components/schemas/PolicyTemplate'        '404':          description: 'Not Found'    delete:       operationId: destroyPolicyTemplate      responses:        '204':          description: 'Destroyed Policy Template'        '404':          description: 'Not Found'components:  schemas:    PolicyTemplate:      type: object      required:        - policyTemplateId        - state        - apiEndPoint        - apiType        - externalReference        - ApplicationSessionContext      properties:        policyTemplateId:          $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'        state:          anyOf:          - type: string            enum: [PENDING, INVALID, READY, SUSPENDED]          - type: string            description: >              This string provides forward-compatibility with future              extensions to the enumeration but is not used to encode              content defined in the present version of this API.        apiEndPoint:          type: string        apiType:          anyOf:          - type: string            enum: [N5, N33]          - type: string            description: >              This string provides forward-compatibility with future              extensions to the enumeration but is not used to encode              content defined in the present version of this API.        externalReference:          type: string        qoSSpecification:          $ref: 'TS26512\_CommonData.yaml#/components/schemas/M1QoSSpecification'        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:          $ref: 'TS26512\_CommonData.yaml#/components/schemas/ChargingSpecification' 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| 22nd Change |

## C.3.9 M1\_EdgeResourcesProvisioning API

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| openapi: 3.0.0info:  title: M1\_EdgeResourcesProvisioning  version: 2.0.0  description: |    5GMS AF M1 Edge Resources Provisioning API    © 2021, 3GPP Organizational Partners (ARIB, ATIS, CCSA, ETSI, TSDSI, TTA, TTC).    All rights reserved.tags:  - name: M1\_EdgeResourcesConfiguration    description: '5G Media Streaming: Provisioning (M1) APIs: Edge Resources Provisioning'externalDocs:  description: 'TS 26.512 V17.1.0; 5G Media Streaming (5GMS); Protocols'  url: 'https://www.3gpp.org/ftp/Specs/archive/26\_series/26.512/'servers:  - url: '{apiRoot}/3gpp-m1/{apiVersion}'    variables:      apiRoot:        default: https://example.com        description: See 3GPP TS 29.512 clause 7.10.paths:  /provisioning-sessions/{provisioningSessionId}/edge-resources-configurations:    parameters:      - name: provisioningSessionId        in: path        required: true        schema:           $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'        description: 'The resource identifier of an existing Provisioning Session.'    get:      operationId: retrieveEdgeResourcesConfiguration      summary: 'Retrieve the Edge Resources Configuration of the specified Provisioning Session'      responses:        '200':          description: 'Success'          content:            application/json:              schema:                $ref: '#/components/schemas/EdgeResourcesConfiguration'    put:      operationId: updateEdgeResourcesConfiguration      summary: 'Update an Edge Resources Configuration for the specified Provisioning Session'      requestBody:        description: 'A JSON representation of an Edge Resources Configuration'        required: true        content:          application/json:            schema:              $ref: '#/components/schemas/EdgeResourcesConfiguration'      responses:        '204':          description: 'Updated Edge Resources Configuration'        '404':          description: 'Not Found'    patch:      operationId: patchEdgeResourcesConfiguration      summary: 'Patch the Edge Resources Configuration for the specified Provisioning Session'      requestBody:        description: 'A JSON representation of a Edge Resources Configuration'        required: true        content:          application/merge-patch+json:            schema:              $ref: '#/components/schemas/EdgeResourcesConfiguration'          application/json-patch+json:            schema:              $ref: '#/components/schemas/EdgeResourcesConfiguration'      responses:        '200':          description: 'Patched Edge Resources Configuration'          content:            application/json:              schema:                $ref: '#/components/schemas/EdgeResourcesConfiguration'        '404':          description: 'Not Found'    delete:       operationId: destroyEdgeResourcesConfiguration      responses:        '204':          description: 'Destroyed Edge Resources Configuration'        '404':          description: 'Not Found'components:  schemas:        EdgeResourcesConfiguration:      type: object      required:        - edgeResourcesConfigurationId        - edgeManagementMode        - easRequirements      properties: edgeResourcesConfigurationId: $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'        edgeManagementMode:          $ref: '#/components/schemas/EdgeManagementMode'        eligibilityCriteria:          $ref: '#/components/schemas/EdgeProcessingEligibilityCriteria'        easRequirements:          $ref: '#/components/schemas/EASRequirements'        applicationContextRelocationRequirements:          type: array          items:            $ref: '#/components/schemas/M1EASRelocationRequirements'    M1EASRelocationRequirements:      type: object      required:        - tolerance      properties:        tolerance:          $ref: '#/components/schemas/EASRelocationTolerance'        maxInterruptionDuration:          $ref: 'TS29571\_CommonData.yaml#/components/schemas/UintegerRm'        maxResponseTimeDifference:          $ref: 'TS29571\_CommonData.yaml#/components/schemas/UintegerRm'    EASRequirements:        type: object        properties:          easType:            type: string          scheds:             type: array            items:              $ref: 'TS29122\_CpProvisioning.yaml#/components/schemas/ScheduledCommunicationTime'          serviceArea:            $ref: 'TS29558\_Eecs\_EESRegistration.yaml#/components/schemas/GeographicalServiceArea'          serviceKpi:            $ref: 'TS29558\_Eees\_EASRegistration.yaml#/components/schemas/EASServiceKPI'          easFeatures:            type: array            items:              type: string          serviceContinuitySupport:            type: array            items:              $ref: 'TS29558\_Eecs\_EESRegistration.yaml#/components/schemas/ACRScenario'    EdgeManagementMode:      anyOf:        - type: string          enum: [EM\_NETWORK\_DRIVEN, EM\_APP\_DRIVEN]        - type: string          description: >            This string provides forward-compatibility with future            extensions to the enumeration but is not used to encode            content defined in the present version of this API.    EASRelocationTolerance:      anyOf:        - type: string          enum: [RELOCATION\_UNAWARE, RELOCATION\_TOLERANT, RELOCATION\_INTOLERANT]        - type: string          description: >            This string provides forward-compatibility with future            extensions to the enumeration but is not used to encode            content defined in the present version of this API. |

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| 23rd Change |

## C.4.1 M5\_ServiceAccessInformation API

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| openapi: 3.0.0info:  title: M5\_ServiceAccessInformation  version: 1.0.0  description: |    5GMS AF M5 Service Access Information API    © 2021, 3GPP Organizational Partners (ARIB, ATIS, CCSA, ETSI, TSDSI, TTA, TTC).    All rights reserved.tags:  - name: M5\_ServiceAccessInformation    description: '5G Media Streaming: Media Session Handling (M5) APIs: Service Access Information'externalDocs:  description: 'TS 26.512 V16.2.0; 5G Media Streaming (5GMS); Protocols'  url: 'https://www.3gpp.org/ftp/Specs/archive/26\_series/26.512/'servers:  - url: '{apiRoot}/3gpp-m5/{apiVersion}'    variables:      apiRoot:        default: https://example.com        description: See 3GPP TS 29.512 clause 6.1.paths:  /service-access-information/{provisioningSessionId}:    parameters:      - name: provisioningSessionId        description: 'The resource identifier of an existing Provisioning Session.'        in: path        required: true        schema:          $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'    get:      operationId: retrieveServiceAccessInformation      summary: 'Retrieve the Service Access Information resource'      responses:        '200':          description: 'Success'          content:            application/json:              schema:                  $ref: '#/components/schemas/ServiceAccessInformationResource'        '404':          description: 'Not Found'components:  schemas:    ServerAddresses:      type: array      items:        $ref: 'TS26512\_CommonData.yaml#/components/schemas/Url'      minItems: 1    ServiceAccessInformationResource:      type: object      required:      - provisioningSessionId      - provisioningSessionType      properties:        provisioningSessionId:          $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'        provisioningSessionType:          $ref: 'TS26512\_CommonData.yaml#/components/schemas/ProvisioningSessionType'        StreamingAccess:          type: object          properties:            mediaPlayerEntry:              $ref: 'TS26512\_CommonData.yaml#/components/schemas/Url'        ClientConsumptionReportingConfiguration:          type: object          required:            - serverAddresses            - locationReporting            - samplePercentage          properties:            reportingInterval:              $ref: 'TS29571\_CommonData.yaml#/components/schemas/DurationSec'            serverAddresses:              $ref: '#/components/schemas/ServerAddresses'            locationReporting:              type: boolean            samplePercentage:              $ref: 'TS26512\_CommonData.yaml#/components/schemas/Percentage'        DynamicPolicyInvocationConfiguration:          type: object          required:            - serverAddresses            - validPolicyTemplateIds            - sdfMethods          properties:             serverAddresses:              $ref: '#/components/schemas/ServerAddresses'            validPolicyTemplateIds:              type: array              items:                 $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'              minItems: 0            sdfMethods:              type: array              items:                $ref: 'TS26512\_CommonData.yaml#/components/schemas/SdfMethod'              minItems: 0            externalReferences:              type: array              items:                type: string              minItems: 1        ClientMetricsReportingConfiguration:          type: array          items:            type: object            required:            - serverAddresses            - samplePercentage            - urlFilters            - metrics            properties:              serverAddresses:                $ref: '#/components/schemas/ServerAddresses'              dataNetworkName:                $ref: 'TS29571\_CommonData.yaml#/components/schemas/Dnn'              reportingInterval:                $ref: 'TS29571\_CommonData.yaml#/components/schemas/DurationSec'              samplePercentage:                              $ref: 'TS26512\_CommonData.yaml#/components/schemas/Percentage'              urlFilters:                type: array                items:                  type: string                minItems: 0              metrics:                type: array                items:                  type: string        NetworkAssistanceConfiguration:          type: object          required:             - serverAddress          properties:            serverAddress:              $ref: 'TS26512\_CommonData.yaml#/components/schemas/Url' ClientEdgeResourcesConfiguration:          type: object          required:            - easDiscoveryTemplate          properties:            eligibilityCriteria:              $ref: 'TS26512\_CommonData.yaml#/components/schemas/EdgeProcessingEligibilityCriteria'            easDiscoveryTemplate:              $ref: 'TS26512\_CommonData.yaml#/components/schemas/EASDiscoveryTemplate'            easRelocationRequirements:              $ref: 'TS26512\_CommonData.yaml#/components/schemas/M5EASRelocationRequirements'    M5EASRelocationRequirements:       type: object      required:         - tolerance      properties:         tolerance:          $ref: '#/components/schemas/EASRelocationTolerance'         maxInterruptionDuration:          $ref: 'TS29571\_CommonData.yaml#/components/schemas/UintegerRm'     EASDiscoveryTempalte:      type: object       required:         - serviceFeatures      properties:         easProviderId:          type: string         easType:          type: string         serviceFeatures:          type: array           items:            type: string |

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| 24th Change |

## C.4.2 M5\_ConsumptionReporting API

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| openapi: 3.0.0info:  title: M5\_ConsumptionReporting  version: 1.0.0  description: |    5GMS AF M5 Consumption Reporting API    © 2021, 3GPP Organizational Partners (ARIB, ATIS, CCSA, ETSI, TSDSI, TTA, TTC).    All rights reserved.tags:  - name: M5\_ConsumptionReporting    description: '5G Media Streaming: Media Session Handling (M5) APIs: Consumption Reporting'externalDocs:  description: 'TS 26.512 V16.2.0; 5G Media Streaming (5GMS); Protocols'  url: 'https://www.3gpp.org/ftp/Specs/archive/26\_series/26.512/'servers:  - url: '{apiRoot}/3gpp-m5/{apiVersion}'    variables:      apiRoot:        default: https://example.com        description: See 3GPP TS 29.512 clause 6.1.paths:  /consumption-reporting/{aspId}:    parameters:      - name: aspId        in: path        required: true        schema:          $ref: 'TS29514\_Npcf\_PolicyAuthorization.yaml#/components/schemas/AspId'        description: 'See 3GPP TS 26.512 clause 11.3.2.'    post:      operationId: submitConsumptionReport      summary: 'Submit a Consumption Report'      requestBody:        description: 'A Consumption Report'        required: true        content:          application/json:            schema:              $ref: '#/components/schemas/ConsumptionReport'      responses:        '204':          description: 'Consumption Report Accepted'        '400':          description: 'Bad Request'        '415':          description: 'Unsupported Media Type'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      required:        - mediaConsumed        - startTime        - duration      properties:        mediaConsumed:          type: string        startTime:          $ref: 'TS29571\_CommonData.yaml#/components/schemas/DateTime'        duration:          $ref: 'TS29571\_CommonData.yaml#/components/schemas/DurationSec'        locations:          type: array          items:            $ref: 'TS26512\_CommonData.yaml#/components/schemas/TypedLocation'          minItems: 1 |

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| 25th Change |

## C.4.3 M5\_MetricsReporting API

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| openapi: 3.0.0info:  title: M5\_MetricsReporting  version: 1.0.0  description: |    5GMS AF M5 Metrics Reporting API    © 2021, 3GPP Organizational Partners (ARIB, ATIS, CCSA, ETSI, TSDSI, TTA, TTC).    All rights reserved.tags:  - name: M5\_ConsumptionReporting    description: '5G Media Streaming: Media Session Handling (M5) APIs: Metrics Reporting'externalDocs:  description: 'TS 26.512 V16.2.0; 5G Media Streaming (5GMS); Protocols'  url: 'https://www.3gpp.org/ftp/Specs/archive/26\_series/26.512/'servers:  - url: '{apiRoot}/3gpp-m5/{apiVersion}'    variables:      apiRoot:        default: https://example.com        description: See 3GPP TS 29.512 clause 6.1.paths:  /metrics-reporting/{provisioningSessionId}/{metricsReportingConfigurationId}:    parameters:      - name: provisioningSessionId        in: path        required: true        schema:          $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'        description: 'The resource identifier of an existing Provisioning Session.'      - name: metricsReportingConfigurationId        in: path        required: true        schema:          $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'        description: 'The resource identifier of a Metrics Configuration in the specified Provisioning Session.'    post:      operationId: submitMetricsReport      summary: 'Submit a Metrics Report'      requestBody:        description: 'A Metrics Report'        required: true        content:          application/3gpdash-qoe-report+xml:            schema:              type: string              format: xml          application/\*:            schema:              type: string      responses:        '204':          description: 'Metrics Report Accepted'        '400':          description: 'Bad Request'        '415':          description: 'Unsupported Media Type' |

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| 26th Change |

## C.4.4 M5\_DynamicPolicies API

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| openapi: 3.0.0info:  title: M5\_DynamicPolicies  version: 1.0.0  description: |    5GMS AF M5 Dynamic Policy API    © 2021, 3GPP Organizational Partners (ARIB, ATIS, CCSA, ETSI, TSDSI, TTA, TTC).    All rights reserved.tags:  - name: M5\_DynamicPolicies    description: '5G Media Streaming: Media Session Handling (M5) APIs: Dynamic Policies'externalDocs:  description: 'TS 26.512 V16.2.0; 5G Media Streaming (5GMS); Protocols'  url: 'https://www.3gpp.org/ftp/Specs/archive/26\_series/26.512/'servers:  - url: '{apiRoot}/3gpp-m5/{apiVersion}'    variables:      apiRoot:        default: https://example.com        description: See 3GPP TS 29.512 clause 6.1.paths:  /dynamic-policies:    post:      operationId: createDynamicPolicy      summary: 'Create (and optionally upload) a new Dynamic Policy resource'      requestBody:        description: 'An optional JSON representation of a Dynamic Policy resource'        content:          application/json:            schema:              $ref: '#/components/schemas/DynamicPolicy'      responses:        '201':          description: 'Created Dynamic Policy Resource'          content:            application/json:              schema:                $ref: '#/components/schemas/DynamicPolicy'          headers:            Location:              description: 'The URL of the newly created Dynamic Policy resource'              required: true              schema:                $ref: 'TS26512\_CommonData.yaml#/components/schemas/Url'        '400':          description: 'Bad Request'        '401':          description: 'Unauthorized'   /dynamic-policies/{dynamicPolicyId}:    parameters:      - name: dynamicPolicyId        description: 'The resource identifier of a Dynamic Policy resource'        in: path        required: true        schema:          $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'    get:      operationId: retrieveDynamicPolicy      summary: 'Retrieve an existing Dynamic Policy resource'      responses:        '200':          description: 'Success'          content:            application/json:              schema:                $ref: '#/components/schemas/DynamicPolicy'        '400':          description: 'Bad Request'        '401':          description: 'Unauthorized'        '404':          description: 'Not Found'    put:      operationId: updateDynamicPolicy      summary: 'Update an existing Dynamic Policy resource'      requestBody:        description: 'A replacement JSON representation of a Dynamic Policy resource'        required: true        content:          application/json:            schema:              $ref: '#/components/schemas/DynamicPolicy'      responses:        '400':          description: 'Bad Request'        '401':          description: 'Unauthorized'        '404':          description: 'Not found'    patch:      operationId: patchDynamicPolicy      summary: 'Patch an existing Dynamic Policy resource'      requestBody:        description: 'A JSON patch to a Dynamic Policy resource'        required: true        content:          application/merge-patch+json:            schema:              $ref: '#/components/schemas/DynamicPolicy'          application/json-patch+json:            schema:              $ref: '#/components/schemas/DynamicPolicy'      responses:        '200':          description: 'Patched Dynamic Policy'          content:            application/json:              schema:                $ref: '#/components/schemas/DynamicPolicy'        '204':          description: 'Patched Dynamic Policy'        '400':          description: 'Bad Request'        '401':          description: 'Unauthorized'        '404':          description: 'Not found'    delete:      operationId: destroyDynamicPolicy      summary: 'Destroy an existing Dynamic Policy resource'      responses:        '204':          description: 'Destroyed Dynamic Policy'        '400':          description: 'Bad Request'        '401':          description: 'Unauthorized'        '404':          description: 'Not Found'components:  schemas:    DynamicPolicy:      type: object      required:        - dynamicPolicyId        - policyTemplateId        - serviceDataFlowDescription        - provisioningSessionId      properties:        dynamicPolicyId:          $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'        policyTemplateId:          $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'        serviceDataFlowDescriptions:          type: array          items:             $ref: 'TS26512\_CommonData.yaml#/components/schemas/ServiceDataFlowDescription'        provisioningSessionId:          $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'        qosSpecification:          $ref: 'TS26512\_CommonData.yaml#/components/schemas/M5QoSSpecification'        enforcementMethod:          type: string        enforcementBitRate:          type: integer |

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## C.4.5 M5\_NetworkAssistance API

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| openapi: 3.0.0info:  title: M5\_NetworkAssistance  version: 1.0.0  description: |    5GMS AF M5 Network Assistance API    © 2021, 3GPP Organizational Partners (ARIB, ATIS, CCSA, ETSI, TSDSI, TTA, TTC).    All rights reserved.tags:  - name: M5\_NetworkAssistance    description: '5G Media Streaming: Media Session Handling (M5) APIs: Network Assistance'externalDocs:  description: 3GPP TS 26.512 V16.2.0; 5G Media Streaming (5GMS); Protocols.  url: 'http://www.3gpp.org/ftp/Specs/archive/29\_series/26.512/'servers:  - url: '{apiRoot}/3gpp-m5/{apiVersion}'    variables:      apiRoot:        default: https://example.com        description: apiRoot as defined in subclause 4.4.1 of 3GPP TS 29.501.paths:  /network-assistance/:    post:      operationId: createNetworkAssistanceSession      summary: 'Create a new Network Assistance Session.'      responses:        '201':          description: 'Created Network Assistance Session'          content:            application/json:              schema:                $ref: '#/components/schemas/NetworkAssistanceSession'          headers:            Location:              description: 'The URL of the nely created Network Assistance Session resource'              required: true              schema:                $ref: 'TS26512\_CommonData.yaml#/components/schemas/Url'        '400':          description: 'Bad Request'        '401':          description: 'Unauthorized'  /network-assistance/{naSessionId}:    parameters:      - name: naSessionId        description: 'The resource identifier of an existing Network Assistance Session resource'        in: path        required: true        schema:          $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'    get:      operationId: retrieveNetworkAssistanceSession      summary: 'Retrieve an existing Network Assistance Session resource'      responses:        '200':          description: 'A JSON representation of a Network Assistance Session resource'          content:            application/json:              schema:                  $ref: '#/components/schemas/NetworkAssistanceSession'        '400':          description: 'Bad Request'        '401':          description: 'Unauthorized'        '404':          description: 'Not Found'    put:      operationId: updateNetworkAssistanceSession      summary: 'Update an existing Network Assistance Session resource'      requestBody:        description: 'A replacement JSON representation of a Network Assistance Session resource'        required: true        content:          application/json:            schema:              $ref: '#/components/schemas/NetworkAssistanceSession'      responses:        '400':          description: 'Bad Request'        '401':          description: 'Unauthorized'        '404':          description: 'Not found'    patch:      operationId: patchNetworkAssistanceSession      summary: 'Patch an existing Network Assistance Session resource'      requestBody:        description: 'A JSON patch to a Network Assistance Session resource'        required: true        content:          application/merge-patch+json:            schema:              $ref: '#/components/schemas/NetworkAssistanceSession'          application/json-patch+json:            schema:              $ref: '#/components/schemas/NetworkAssistanceSession'      responses:        '200':          description: 'Patched Network Assistance Session'          content:            application/json:              schema:                  $ref: '#/components/schemas/NetworkAssistanceSession'        '204':          description: 'Patched Network Assistance Session'        '400':          description: 'Bad Request'        '401':          description: 'Unauthorized'        '404':          description: 'Not Found'    delete:      operationId: destroyNetworkAssistanceSession      summary: 'Destroy an existing Network Assistance Session resource'      responses:        '204':          description: 'Destroyed Network Assistance Session'        '400':          description: 'Bad Request'        '401':          description: 'Unauthorized'        '404':          description: 'Not Found'  /network-assistance/{naSessionId}/recommendation:    get:      operationId: requestBitRateRecommendation      summary: 'Obtain a bit rate recommendation for the next recommendation window'      parameters:        - name: naSessionId          description: 'The resource identifier of an existing Network Assistance Session resource'          in: path          required: true          schema:            type: string      responses:        '200':          description: 'Success'          content:            application/json:              schema:                  $ref: 'TS26512\_CommonData.yaml#/components/schemas/M5QoSSpecification'        '400':          description: 'Bad Request'        '401':          description: 'Unauthorized'        '404':          description: 'Not Found'  /network-assistance/{naSessionId}/boostRequest:    post:      operationId: requestDeliveryBoost      summary: 'Request a delivery boost'      parameters:        - name: naSessionId          description: 'The resource identifier of an existing Network Assistance Session resource'          in: path          required: true          schema:            type: string      responses:        '200':          description: 'Delivery Boost Request Processed'          content:            application/json:              schema:                  $ref: 'TS26512\_CommonData.yaml#/components/schemas/OperationSuccessResponse'        '400':          description: 'Bad Request'        '401':          description: 'Unauthorized'        '404':          description: 'Not Found'components:  schemas:    NetworkAssistanceSession:      type: object      required:         - naSessionId      properties:        naSessionId:          $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'        serviceDataFlowDescription:          type: array          items:             $ref: 'TS26512\_CommonData.yaml#/components/schemas/ServiceDataFlowDescription'          minItems: 1        policyTemplateId:          $ref: 'TS26512\_CommonData.yaml#/components/schemas/ResourceId'        requestedQoS:          $ref: 'TS26512\_CommonData.yaml#/components/schemas/M5QoSSpecification'        recommendedQoS:          $ref: 'TS26512\_CommonData.yaml#/components/schemas/M5QoSSpecification'        notficationURL:          $ref: 'TS26512\_CommonData.yaml#/components/schemas/Url' 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| End of Changes |