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

**14th – 22nd February 2022**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **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 | | | | | | | | | |
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| ***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 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-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 | | | | | | | | |
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| ***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 | | | | | | | | |
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|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

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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: 3.0.0  info:    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: 3.0.0  info:    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 Content  components:    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: 3.0.0  info:    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: 3.0.0  info:    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: 3.0.0  info:    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: 3.0.0  info:    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

|  |
| --- |
| openapi: 3.0.0  info:    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: 3.0.0  info:    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: 3.0.0  info:    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: 3.0.0  info:    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: 3.0.0  info:    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: 3.0.0  info:    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: 3.0.0  info:    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: 3.0.0  info:    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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| 27th Change |

## C.4.5 M5\_NetworkAssistance API

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| openapi: 3.0.0  info:    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 |