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In the present document "**shall**", "**shall not**", "**should**", "**should not**", "**may**", "**need not**", "**will**", "**will not**", "**can**" and "**cannot**" are to be interpreted as described in clause 3.2 of the [ETSI Drafting Rules](#) (Verbal forms for the expression of provisions).

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Foreword

This Technical Specification has been produced by the 3rd Generation Partnership Project (3GPP).

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 - 1 presented to TSG for information;
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 - 3 or greater indicates TSG approved document under change control.
- y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
- z the third digit is incremented when editorial only changes have been incorporated in the document.

In the present document, modal verbs have the following meanings:

- shall** indicates a mandatory requirement to do something
- shall not** indicates an interdiction (prohibition) to do something

The constructions "shall" and "shall not" are confined to the context of normative provisions, and do not appear in Technical Reports.

The constructions "must" and "must not" are not used as substitutes for "shall" and "shall not". Their use is avoided insofar as possible, and they are not used in a normative context except in a direct citation from an external, referenced, non-3GPP document, or so as to maintain continuity of style when extending or modifying the provisions of such a referenced document.

- should** indicates a recommendation to do something
- should not** indicates a recommendation not to do something
- may** indicates permission to do something
- need not** indicates permission not to do something

The construction "may not" is ambiguous and is not used in normative elements. The unambiguous constructions "might not" or "shall not" are used instead, depending upon the meaning intended.

- can** indicates that something is possible
- cannot** indicates that something is impossible

The constructions "can" and "cannot" are not substitutes for "may" and "need not".

- will** indicates that something is certain or expected to happen as a result of action taken by an agency the behaviour of which is outside the scope of the present document
- will not** indicates that something is certain or expected not to happen as a result of action taken by an agency the behaviour of which is outside the scope of the present document
- might** indicates a likelihood that something will happen as a result of action taken by some agency the behaviour of which is outside the scope of the present document

might not indicates a likelihood that something will not happen as a result of action taken by some agency the behaviour of which is outside the scope of the present document

In addition:

is (or any other verb in the indicative mood) indicates a statement of fact

is not (or any other negative verb in the indicative mood) indicates a statement of fact

The constructions "is" and "is not" do not indicate requirements.

1 Scope

The present document specifies the protocols aspects for supporting application layer procedures to enable download and update of the data channel application profiles on UE between the MMTel enabler client on UE and the MMTel enabler server over the MMTel-1 interfaces as specified in 3GPP TS 23.392 [2].

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

- [1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".
- [2] 3GPP TS 23.392: "Application enablement aspects for MMTel".
- [3] 3GPP TS 24.542: "Notification management - Service Enabler Architecture Layer for Verticals (SEAL); Protocol specification;".
- [4] IETF RFC 9112: "HTTP/1.1".
- [5] JSON Schema: " JSON Schema Draft-07", <http://json-schema.org/specification.html>.
- [6] 3GPP TS 23.434: "Service Enabler Architecture Layer for Verticals (SEAL);Functional architecture and information flows;".

3 Definitions of terms, symbols and abbreviations

3.1 Terms

For the purposes of the present document, the terms given in 3GPP TR 21.905 [1] and the following apply. A term defined in the present document takes precedence over the definition of the same term, if any, in 3GPP TR 21.905 [1].

For the purposes of the present document, the following terms and definitions given in 3GPP TS 23.392 [x] apply:

MMTel service
Root application

3.2 Abbreviations

For the purposes of the present document, the abbreviations given in 3GPP TR 21.905 [1] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in 3GPP TR 21.905 [1].

DC Data Channel
UX User Experience

4 General description

The MMTel enabler service provides data channel application profile management related capabilities as one enablement service to application providers/vertical service providers. The present document enables an MMTel enabler client to communicate with an MMTel enabler server to control the downloading of data channel applications on UE by using the data channel application profile.

5 Functional entities

5.1 General

The functional entities for MMTel enabler are described in the following subclauses.

5.2 MMTel enabler client

An MMTel enabler client acts as client-side functionality for DC application profile management. The functionalities of the MMTel enabler client include:

- a) support HTTP client and HTTP server functionalities as specified in IETF RFC 9112 [4] for procedures defined in clause 6.2; and
- b) support the interaction with SEAL client to utilize the SEAL notification management capability as specified in 3GPP TS 24.542 [3].

5.3 MMTel enabler server

An MMTel enabler server act as server-side functionality for DC application profile management. The following functionalities of MMTel enabler server need to be considered in current document:

- a) support HTTP client and HTTP server functionalities as specified in IETF RFC 9112 [4] for procedures defined in clause 6.2; and
- b) support the interaction with SEAL server to utilize the SEAL notification management capability as specified in 3GPP TS 24.542 [3].

6 DC application profile management procedures

6.1 General

This clause, the detailed behaviors of the MMTel enabler client and MMTel enabler server over the MMTel-1 interface are described. The following procedures are involved:

- a) DC application profiles download procedure: the MMTel enabler client downloads the DC application profile from the MMTel enabler server and use it to control the downloading behavior;
- b) DC application profiles update procedure: the MMTel enabler server sends the DC application profiles to the UE directly or notifies the MMTel enabler client to request the DC application profiles.

6.2 Control the downloading of data channel applications

6.2.1 DC application profiles downloading on UE

6.2.1.1 General

This clause specifies the following procedures:

- a) the UE's obtaining the Root application is specified in clause 6.2.1.2; and
- b) the UE's obtaining the DC application profile(s) is specified in clause 6.2.1.3.

6.2.1.2 Obtaining the Root application

6.2.1.2.1 Procedure at the MMTel enabler client

In order to obtain the Root application, the MMTel enabler client shall send an HTTP GET request to the MMTel enabler server for the Root application. In this HTTP GET request, the MMTel enabler client shall include a Request-URI set to ("/") with the following query parameters:

- a) shall include a <device-vendor> element to indicate the vendor of the terminal device;
- b) shall include a <device-type> element to indicate the model of the terminal device; and
- c) may include a <root-application-version> element to indicate the version of the Root application in the terminal device.

Upon receiving an HTTP 200 (OK) from the MMTel enabler server, the MMTel enabler client shall parse the response message received from the MMTel enabler server and updates the local Root application and Root application validity to the value received in <root-application-validity> element. If received an HTTP 304 (Not Modified) from the MMTel enabler server, the MMTel enabler client does not update the local Root application.

6.2.1.2.2 Procedure at the MMTel enabler server

Upon receiving the HTTP GET request from the MMTel enabler client where the Request-URI of the HTTP GET request is set to ("/"), the MMTel enabler server shall check whether the Root application version included in the query parameters is the latest version:

- a) if the Root application version is not the latest version or the Root application version is not included in the request, the MMTel enabler server shall generate an HTTP 200 (OK) response containing:
 - 1) a Content-Type header field set to "application/json";
 - 2) shall include the information elements as specified in 3GPP TS 23.392 [2] encoded in JSON format as specified in clause 7.2.1, in the HTTP payload:
 - i) shall include an <update-needed> element to indicate that the Root application is needed to be updated by the MMTel enabler client in the UE;
 - ii) may include a <root-application-version> element to indicate the newest version of the Root application;
 - iii) may include a <root-application-validity> element to indicate the validity of the Root application; and
 - iv) may include a <root-application> element to indicate the Root application provided by the MMTel service provider; and
 - 3) shall include a zip package in the HTTP payload. The zip package contains the HTML file that serves as the entry point of the Root application, along with supporting CSS and JS scripts, which together form an executable HTML5 page. The HTML file shall be placed in the root directory of the zip package, and its filename must be fixed as index.html.

NOTE: The details of the zip package included in the HTTP payload is implementation specific.

- b) if the Root application version is the latest version, the MMTel enabler server shall generate an HTTP 304 (Not Modified) response;

6.2.1.3 Obtaining the DC application profile(s)

6.2.1.3.1 Procedure at the MMTel enabler client

In order to obtain the DC application profile(s), the MMTel enabler client shall send an HTTP GET request to the MMTel enabler server for DC application profiles. In this HTTP GET request, the MMTel enabler client shall include a Request-URI set to ("/applicationlist") with the following query parameters:

- a) shall include a <MMTel-enabler-client-version> element to indicate the version of the MMTel enabler client;
- b) may include an <application-type> element to indicate the type of the application that UE wants to request;
- c) may include a <begin-index> element to indicate the starting index of the first Data Channel Application required in the Data Channel Application list; and
- d) may include a <number-of-application-profile-required> element to indicate the total number of DC application profiles required in this request;

Upon receiving the HTTP GET response for the DC application profiles from the MMTel enabler server, the MMTel enabler client shall

1. parse the response message received from the MMTel enabler server;
2. locally stores the downloaded DC application profiles
3. updates the DC application profile validity to the value received in <application-validity> element; and
4. displays the related application information from the DC application profile on the Root application.

NOTE: The UX aspect is out of scope of the present document.

6.2.1.3.2 Procedure at the MMTel enabler server

Upon receiving the HTTP GET request from the MMTel enabler client where the Request-URI of the HTTP GET request is set to ("/applicationlist"), the MMTel enabler server shall determine the list of DC application profiles for the response based on the query parameters included in the Request-URI and generate an HTTP 200 (OK) response containing:

- a) Content-Type header field set to "application/json"; and
- b) shall include the information elements as specified in 3GPP TS 23.392 [2] encoded in JSON format as specified in clause 7.2.2, in the HTTP payload:
 - 1) shall include a <DC-application-profile number> element to indicate the total number of the DC Application profile included in the list;
 - 2) shall include a <begin-index> element to indicate the starting index of the first Data Channel Application responded in the Data Channel Application list;
 - 3) shall include a <DC-application-profile-list> element, each element in this list contains a DC application profile of this Data Channel Application. The cardinality of <DC-application-profile-list> shall exactly match the value of the <DC-application-profile-number>. For each DC application profile:
 - i) shall include an <app-id> element to identify a Data Channel Application;
 - ii) may include an <application-name> element to indicate the name of the Data Channel Application;
 - iii) may include a <service-type> element to help the user understand the type of services provided by the application;
 - iv) may include an <application-icon> element to indicate the icon of the Data Channel Application. This element includes the URL of the application icon;

- v) may include an <application-version> element to indicate the version of the Data Channel Application;
- vi) may include an <application-validity> element to indicate the latest validity of the Data Channel Application;
- vii) may include an <application-loading-phase> element to indicate when this Data Channel Application is allowed to be used; When present, shall accept one of the following enumerated values
 - Pre-call only and
 - In-call only;
- viii) may include an <autoload> element to indicate whether this Data Channel Application is needed to be loaded to the UE automatically;
- ix) may include an <autolaunch> element to indicate whether this Data Channel Application is needed to be downloaded to the UE and run automatically;
- x) may include an <if-work-without-peer-DC> element to indicate whether this Data Channel Application can be used if Data Channel is not supported by the other party of the call;
- xi) may include a <supported-scenario> element to indicate the supported media type required for this Data Channel Application. This element, when present, shall accept one of the following enumerated values:
 - Voice call only;
 - Video call only; and
 - Voice and video call;
- xii) may include a <condition> element to indicate whether this Data Channel Application can be used under this condition. The conditions may include Service area, Time period, etc.;
- xiii) may include a <3gpp-qos-hint> element to indicate the QoS requirement of this Data Channel Application; The value of this element is used to set the value of “a=3gpp-qos-hint” attribute in SDP for the data channel(s) used by the application.
- xiv) may include a <personal-data-collection> element to indicate whether this Data Channel Application will collect the user personal data; and
- xv) may include a <personal-data-collection-info-URL> element to indicate the URL of the description of the purpose of mandatory and optional personal data to be collected.

6.2.2 DC application profiles updating on UE

6.2.2.1 The MMTel enabler client request DC application profiles based on notification

6.2.2.1.1 General

The MMTel Enabler Server can notify the MMTel Enabler Client in the UE to send application request messages to the MMTel Enabler Server to request the DC application profiles.

In this procedure, the MMTel Enabler client and MMTel Enabler server utilize notification management service procedures of SEAL as specified in 3GPP TS 24.542 [3].

NOTE: If SEAL client is co-located with MMTel Enabler client, then MMTel Enabler client act as a SEAL client to perform procedures. If SEAL client is not co-located with MMTel Enabler client, then the interaction between MMTel Enabler client and SEAL client is implementation specific.

6.2.2.1.2 Procedure at the MMTel enabler client

In order to request DC application profiles based on notification, the MMTel Enabler client interacts with SNM-C in the same UE, or acts as SNM-C, and:

- a) shall utilize Notification channel creation procedures as specified in clause 6.2.2.1 of 3GPP TS 24.542 [3] to create the notification channel, with following clarification:
 - 1) In step e) of clause 6.2.2.1 of 3GPP TS 24.542 [3],
 - i) shall set the channel type to PUSH;
 - ii) shall set the PUSH channel details parameter with the PUSH callback-URL;
- b) after the Notification channel is created, the MMTel Enabler client subscribes to the MMTel Enabler server for receiving notifications. To subscribe the notification, the MMTel Enabler client shall send an HTTP POST request to the MMTel enabler server: In the HTTP POST request the MMTel Enabler client:
 - 1) shall include a Content-Type header field set to "application/json";
 - 2) shall include the information elements as specified in 3GPP TS 23.392 [2] encoded in JSON format as specified in clause 7.3.1. In the HTTP payload:
 - i) shall include a <MMTel Enabler Client ID> element to indicate the requesting MMTel Enabler client;
 - ii) shall include a <MMTel Enabler Client version> element to indicate the version of MMTel Enabler client;
 - iii) shall include a <Validity Duration> element to indicate how long the subscription will last (i.e. subscription lifetime) as requested by the MMTel Enabler client; and
 - iv) the callback URL returned from the notification management server is included in this subscription request sent to the MMTel Enabler server; and

NOTE: The step b) is the step where the VAL client subscribes to the VAL server for receiving notifications, i.e., step 7 of clause 17.3.3 of 3GPP TS 23.434 [6]. This step is out of scope of the SEAL notification management service specified in 3GPP TS 24.542 [3].

- c) upon receiving the HTTP POST request over a call back URI which was given to MMTel Enabler server, the MMTel Enabler client shall use the procedures specified in clause 6.2.1.1 to request the DC application profiles.

If the MMTel Enabler server acts as SNM-S to provide the notification service, the MMTel Enabler server knows the call back URI of the MMTel Enabler client during the setup of bootstrap data channel. In this case, the step a) and step b) are skipped.

6.2.2.1.3 Procedure at the MMTel enabler server

In order to notify the MMTel Enabler client to request DC application profiles, the MMTel Enabler server interacts with SNM-S or acts as SNM-S, and:

- a) shall utilize Notification channel creation procedures as specified in clause 6.2.2.2 of 3GPP TS 24.542 [3] to create the notification channel, with following clarification:
 - 1) In step e) of clause 6.2.2.1 of 3GPP TS 24.542 [3], the channel type is PUSH;
- b) upon receiving the HTTP POST subscription request sent from MMTel Enabler client containing the callback URL, the MMTel Enabler server:
 - 1) shall create the subscription and set the subscription lifetime to the value included in the <Validity Duration> element;
 - 2) shall store this PUSH callback-URL; and
 - 3) shall delete the subscription if the subscription lifetime is expired; and
- c) if the DC application profiles is updated, the MMTel Enabler server shall utilize PUSH notification messages procedures as specified in clause 6.2.3.1.2 of 3GPP TS 24.542 [3] to notify the MMTel Enabler client, with following clarification:
 - 1) only one notification message should be included in this notification message payload;

- 2) may include a <Urgent> element in the "VAL Notification Message" parameter, i.e. the payload of the notification message, to indicate whether the operation is urgent to UE, i.e. whether the Root application and profile need to be updated immediately.

If the MMTel Enabler server acts as SNM-S to provide the notification service, the MMTel Enabler server knows the call back URI of the MMTel Enabler client during the setup of bootstrap data channel. In this case, the step a) and step b) are skipped.

6.2.2.2 The MMTel Enabler Server notifies the DC application profile to the MMTel Enabler Client

6.2.2.2.1 General

The MMTel Enabler Server can notify the DC application profile to the MMTel Enabler Client directly. In this case, the MMTel Enabler Client in the UE should not send application request messages to the MMTel Enabler Server to request the DC application profiles.

In this procedure, the MMTel Enabler client and MMTel Enabler server utilize notification management service procedures of SEAL as specified in 3GPP TS 24.542 [3].

NOTE: If SEAL client is co-located with MMTel Enabler client, then MMTel Enabler client act as a SEAL client to perform procedures. If SEAL client is not co-located with MMTel Enabler client, then the interaction between MMTel Enabler client and SEAL client is implementation specific.

6.2.2.2.2 Procedure at the MMTel enabler client

In order to receive DC application profiles from MMTel Enabler Server based on notification, the MMTel Enabler client interacts with SNM-C in the same UE, or acts as SNM-S, and:

- a) shall utilize Notification channel creation procedures as specified in clause 6.2.2.1 of 3GPP TS 24.542 [3] to create the notification channel, with following clarification:
 - 1) In step e) of clause 6.2.2.1 of 3GPP TS 24.542 [3],
 - i) shall set the channel type to PUSH; and
 - ii) shall set the PUSH channel details parameter with the PUSH callback-URL;
 - b) after the Notification channel is created, the MMTel Enabler client subscribes to the MMTel Enabler Server for receiving notifications. To subscribe the notification, the MMTel Enabler client shall send an HTTP POST request to the MMTel Enabler server: In the HTTP POST request the MMTel Enabler client shall include a Request-URI set to ("/") with the following query parameters:
 - 1) shall include a <MMTel Enabler Client ID> element to indicate the requesting MMTel Enabler client;
 - 2) shall include a <MMTel Enabler Client version> element to indicate the version of MMTel Enabler client;
 - 3) shall include a <Validity Duration> element to indicate how long the subscription will last (i.e. subscription lifetime) as requested by the MMTel Enabler client; and
 - 4) the callback URL returned from the notification management server is included in this subscription request sent to the MMTel Enabler server; and
 - c) upon receiving the HTTP POST request over a call back URI which was given to MMTel Enabler server, the MMTel enabler client shall parse the HTTP POST request received from the MMTel enabler server and locally stores the DC application profiles included in this HTTP POST request. Then the MMTel enabler client displays the related application information from the DC application profile on the Root application.

If the MMTel Enabler server acts as SNM-S to provide the notification service, the MMTel Enabler server knows the call back URI of the MMTel Enabler client during the setup of bootstrap data channel. In this case, the step a) and step b) are skipped.

6.2.2.2.3 Procedure at the MMTel enabler server

In order to notify the MMTel Enabler client the DC application profiles, the MMTel Enabler server interacts with SNM-S or acts as SNM-S, and:

- a) shall utilize Notification channel creation procedures as specified in clause 6.2.2.2 of 3GPP TS 24.542 [3] to create the notification channel, with following clarification:
 - 1) In step e) of clause 6.2.2.1 of 3GPP TS 24.542 [3], the channel type is PUSH;
- b) upon receiving the HTTP POST subscription request sent from MMTel Enabler client containing the callback URL, the MMTel Enabler server:
 - 1) shall create the subscription and set the subscription lifetime to the value included in the <Validity Duration> element;
 - 2) shall store this PUSH callback-URL; and
 - 3) shall delete the subscription if the subscription lifetime is expired; and
- c) if the DC application profiles is updated, the MMTel Enabler server shall utilize PUSH notification messages procedures as specified in clause 6.2.3.1.2 of 3GPP TS 24.542 [3] to notify the MMTel Enabler client, with following clarification:
 - 1) only one notification message should be included in this notification message payload; and
 - 2) shall include the information elements as specified in step b) of clause 6.2.1.2 encoded in JSON format as specified in clause 7.2.2, in the "VAL Notification Message" parameter.

NOTE: The MMTel service provider can provide the MMTel Enabler client with different DC application profile list based on the <MMTel Enabler client version> element included in the HTTP POST request specified in step b) of clause 6.2.2.2.2.

If the MMTel Enabler server acts as SNM-S to provide the notification service, the MMTel Enabler server knows the call back URI of the MMTel Enabler client during the setup of bootstrap data channel. In this case, the step a) and step b) are skipped.

7 Coding

7.1 General

This clause defines the JSON schema of the body of the request/response specified in the present document. The schema is based on JSON Schema Draft-07 [8].

7.2 Control the downloading of data channel applications

7.2.1 Get root application response structure

The schema is based on JSON Schema Draft-07 [5]. The JSON schema is defined below:

```
{
  "$schema": "http://json-schema.org/draft-07/schema#",
  "title": "Get Root application response",
  "description": "Get Root application response",
  "type": "object",
  "required": ["update-needed"],
  "properties": {
    "update-needed": {
      "type": "boolean",
      "description": "Indicates if full root application update is required"
    },
    "root-application-version": {
```

```

    "type": "string",
    "description": "Current or new version identifier"
  },
  "root-application-validity": {
    "type": "string",
    "format": "date-time",
    "description": "Updated expiration timestamp"
  },
  "root-application": {
    "type": "object",
    "description": "Required only when full update is needed",
    "properties": {
      "package-id": { "type": "string" },
      "download-url": { "type": "string", "format": "uri" },
      "signature": { "type": "string" },
      "size": { "type": "integer", "minimum": 1 }
    },
    "required": ["package-id", "download-url"]
  }
},
"allOf": [
  {
    "if": {
      "properties": { "update-needed": { "const": true } },
      "required": ["update-needed"]
    },
    "then": {
      "required": ["root-application", "root-application-version", "root-application-validity"],
      "properties": {
        "root-application": {
          "type": "object",
          "minProperties": 1
        }
      }
    }
  },
  {
    "if": {
      "properties": { "update-needed": { "const": false } },
      "required": ["update-needed"]
    },
    "then": {
      "not": { "required": ["root-application"] },
      "anyOf": [
        {
          "required": ["root-application-version"]
        },
        {
          "required": ["root-application-validity"]
        }
      ],
      "properties": {
        "root-application-version": { "type": "string" },
        "root-application-validity": { "type": "string" }
      },
      "required": []
    }
  }
]
},
"additionalProperties": false
}

```

7.2.2 Get DC application profile list response structure

The schema is based on JSON Schema Draft-07 [5]. The JSON schema is defined below:

```

{
  "$schema": "http://json-schema.org/draft-07/schema#",
  "title": "DC-Application-Profile-Response",
  "description": "Get DC application profile List response",
  "type": "object",
  "required": [
    "DC-application-profile-number",
    "begin-index",
    "DC-application-profile-list"
  ],

```

```

"properties": {
  "DC-application-profile-number": {
    "type": "integer",
    "minimum": 1,
    "description": "Total number of DC Application profiles"
  },
  "begin-index": {
    "type": "integer",
    "minimum": 0,
    "description": "Starting index of the first profile"
  },
  "DC-application-profile-list": {
    "type": "array",
    "items": {
      "type": "object",
      "required": ["app-id"],
      "properties": {
        "app-id": {
          "type": "string",
          "description": "Data Channel Application identifier"
        },
        "application-name": {
          "type": "string",
          "description": "Human-readable application name"
        },
        "service-type": {
          "type": "string",
          "description": "Service category descriptor"
        },
        "application-icon": {
          "type": "string",
          "format": "uri",
          "description": "URL to application icon"
        },
        "application-version": {
          "type": "string",
          "description": "Version identifier"
        },
        "application-validity": {
          "type": "string",
          "format": "date-time",
          "description": "Expiration timestamp"
        },
        "application-loading-phase": {
          "type": "string",
          "enum": ["PRECALL", "INCALL"],
          "description": "Allowed usage phase"
        },
        "autoload": {
          "type": "boolean",
          "description": "Automatic loading flag"
        },
        "autolaunch": {
          "type": "boolean",
          "description": "Automatic execution flag"
        },
        "if-work-without-peer-DC": {
          "type": "boolean",
          "description": "Peer DC compatibility flag"
        },
        "supported-scenario": {
          "type": "string",
          "enum": ["Voice call only", "Video call only", "Voice and video call"],
          "description": "Supported media scenario type"
        },
        "condition": {
          "type": "string",
          "description": "Usage conditions (e.g. 'Service area', 'Time period', or other custom
conditions)"
        },
        "3gpp-qos-hint": {
          "type": "string",
          "description": "QoS requirements"
        },
        "personal-data-collection": {
          "type": "boolean",
          "description": "Personal data collection flag"
        }
      }
    }
  }
}

```


Annex A: Change history

Change history							
Date	Meeting	TDoc	CR	Rev	Cat	Subject/Comment	New version
2025-04	CT1#154	C1-252435	-	-	-	Proposed skeleton approved at CT1#154	0.0.0
2025-04	CT1#154					Implementing the following p-CR agreed by CT1: C1-252436,C1-252437,C1-252440,C1-252441,C1-252442,C1-252443,C1-252470 Editorial change from the rapporteur.	0.1.0
2025-05	CT1#155					Implementing the following p-CR agreed by CT1: C1-254001, C1-254002 Editorial change from the rapporteur.	0.2.0
2025-09	CT1#156					Implementing the following p-CR agreed by CT1: C1-254982, C1-255533, C1-255534, C1-255535 Editorial change from the rapporteur.	0.3.0
2025-09	CT#109	CP-252117				Presenting 3GPP TS 24.392 to CT#109 for information	1.0.0
2025-11	CT1#157 and CT1#158					Implementing the following p-CR agreed by CT1: C1-256801, C1-256802, C1-257114, C1-257116, C1-257757 Editorial change from the rapporteur.	1.1.0
2025-12	CT#110	CP-253071				Presentation to CT#110 for approval	2.0.0
2025-12	CT#110	CP-253071				Approved by TSG CT.	19.0.0

History

Version	Date	Status
V19.0.0	February 2026	Publication