**3GPP TSG-CT WG1 Meeting #141eC1-232348**

**Online 17– 21 April 2023**

**Source: Samsung**

**Title: Pseudo-CR for procedures to create notification channel request**

**Spec: 3GPP TS 24.542 v0.1.0**

**Agenda item: 18.2.17**

**Document for: Agreement**

**1. Introduction**

This p-CR provide the procedure to create notification channel request to 3GPP TS 24.542 to the notification management of SEAL services

**2. Reason for Change**

The pCR defines the procedures to enable a notification management client to create a notification channel with the notification management server

**3. Proposal**

It is proposed to agree the following changes to 3GPP TS 24.542 v0.1.0

\* \* \* First Change \* \* \* \*

# 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".

[Y] IETF RFC 6750: "The OAuth 2.0 Authorization Framework: Bearer Token Usage".

[Z] IETF RFC 7159: "The JavaScript Object Notation (JSON) Data Interchange Format".

\* \* \* Next Change \* \* \* \*

## 6.2. On-network procedures

### 6.2.X Notification channel creation procedure

#### 6.2.X.1 SNM client procedures

Upon receiving a request from VAL service to receive notifications via the notification channel; the SNM-C may create a notification channel by sending an HTTP POST request to the SNM-S. In the HTTP POST request the SNM-C:

1. shall set the Request-URI to the URI of the SNM-S;
2. shall include the Host header with public user identity of SNM-S;
3. shall include an Authorization header field with the "Bearer" authentication scheme set to an access token of the "bearer" token type as specified in IETF RFC 6750 [Y];
4. shall include a Content-Type header field set to "application/vnd.3gpp.seal-create-notification-channel-request";
5. shall generate the create notification channel request message as specified in clause X.1.2:

1) shall set the requestor identity to the notification management client identity;

2) shall set the channel type to PULL or PUSH based on the VAL Application requesting the use of notification channel;

3) may set the PUSH channel details; and

4) shall set the validity duration of the notification channel; and

f) include the parameters specified in clause X.1.2 serialized into a JavaScript Object Notation (JSON) structure as specified in IETF RFC 7159 [Z].

Editor's note: Changes related to HTTP features like HTTP long polling and HTTP multiplexing shall be defined as part of FFS.

#### 6.2.X.2 SNM server procedures

Upon reception of an HTTP POST request from SNM-C where the Request-URI of the HTTP POST request contains the URI of the SNM-S, the SNM-S:

a) shall determine the requestor identity of the received HTTP POST request as specified in clause 6.2.Y, and:

1) if the identity of the sender of the received HTTP POST request is not authorized user, shall respond with an HTTP 403 (Forbidden) response to the HTTP POST request and skip rest of the steps;

b) shall process the create notification channel request and if the channel type is:

1) PUSH, the PUSH channel details message shall be processed to get the subscription identity(s) and its associated VAL Server information(s) for which the NM-C prefers to receive notification via the notification channel. When the Val server shares the notification message to NM-S, NM-S shall forward the same to NM-C;

2) PULL, the NM-S shall wait for the NM-C to pull the notification messages;

Editor's note: Procedures for NM-C initiated PULL is FFS.

Editor's note: In case of multiple notification accumulated at the NM-S from same VAL Server towards the NM-C. How the NM-S decides to share all the notifications of latest notifications is FFS.

1. shall process the validity duration share by the NM-C.

NOTE: The NM-S shall store the of the authorized user and information shared as part of create notification channel request for future references

Upon successful creation of notification channel; the SGM-S:

1. shall create a notification channel response message with below attributes as specified in clause X.1.3;

1) shall generate unique channel identifier;

2) shall generate the callback URL, which shall be used by VAL clients in UE for sharing it to VAL Server as part of their respective services;

3) may generate the validity duration of the notification channel;

4) may generate a notification URL that shall be used by NM-C to pull the notifications from NM-S in case of PULL channel type;

b) shall include a Content-Type header field set to "application/vnd.3gpp.seal-create-notification-channel-response"; and

c) shall send an HTTP 200 (OK) response including message generated above.

\* \* \* Next Change \* \* \* \*

Annex X (normative): Parameters for different operations

# X.1 Creating notification channel

## X.1.1 General

The information in this annex provides a normative description of the parameters which will be sent by SNM-C while creating notification channel request and the parameters which will be sent by SNM-S as a response to request for creating notification channel.

## X.1.2 Client side parameters

The SNM-C shall convey the following parameters while sending request for create notification channel request.

Table X.1.2-1: Client side parameters for create notification channel request

|  |  |
| --- | --- |
| Parameter | Description |
| Requestor identity | REQUIRED. Represents the identity of the notification management client |
| Channel type | REQUIRED. Represents PULL or PUSH method to be used for delivering the notification messages  - 0x01: PUSH TYPE  - 0x02: PULL TYPE |
| PUSH channel details | OPTIONAL. Represents details of the type of PUSH delivery and its associated data |
| Expiry Time | REQUIRED. Represents the duration the notification channel shall be active (i.e. channel lifetime) as requested by the notification management client |

## X.1.3 Server side parameters

The SNM-S shall convey the following parameters while sending response to the create notification channel request.

Table X.1.3-1: Server side parameters for create notification channel response

|  |  |
| --- | --- |
| Parameter | Description |
| Notification URL | OPTIONAL. Represents the URL that shall be used by NM-C to pull notification if the channel type is PULL |
| Callback URL | REQUIRED. Represents the URL, which shall be notified to VAL client by NM-C. Further this URL shall be shared by VAL client to VAL server while subscribing for a VAL services |
| Channel Identifier | REQUIRED. Represents the identifier of the newly created notification channel |
| Expiry Time | OPTIONAL. Represents the duration the notification channel shall be active (i.e. channel lifetime) as requested by the notification management client |

\* \* \* End of Changes \* \* \* \*