## ANNEX M (informative): Change Request form

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| **CHANGE REQUEST** |
|  | ETSI EN 302 637-3 | **Version** | 1.3.1 | **CR** | 2 | **rev** | - |  |
|  |
| **CR Title** | Type of ServiceSpecificPermissions in the DENM standard |
|  |  |
| **Original Source** | ITS WG5 |
|  |  |
| **Work Item Ref** | REN/ITS-0010090 | **Submission date** | 22/03/2019 |
| **Approving TB**  | ITS | **Approval date** | 08/04/2019 |
| **Category:** | **F** | **Release** |  |  |
|  | Use **one** of the following categories:**F** (correction)**A** (correction in an earlier release)**B** (addition of feature) **C** (functional modification of feature)**D** (editorial modification) |  |
|  |  |
| **Reason for change** | There are two options for specifying SSPs in TS 103 097. The DENM standard does not state which one to use. |
|  |  |
| **Consequence if not approved** | If it is not clarified which one option be used, this could cause interoperability problems if sending and receiving implementations use different options. The permissions could potentially not be decoded and hence DENMs cannot be validated from a security/permissions point of view. |
|  |  |
| **Summary of change** | 1. Add the following sentence to 6.2.2.2:

*DENMs shall be signed using private keys associated to Authorization Tickets that contain SSPs of type BitmapSsp as specified in ETSI TS 103 097 (V1.3.1) [9].*1. Move reference [i.17] to the normative references as reference [9]
 |
|  |  |
| **Clauses affected** | 2.1 and 6.2.2.2 |
|  |  |
| **Linked Change Requests** |  |  |
|  |  |  |
|  |  |
| **Other comments** | The same change has already been done in the CAM standard clause 6.2.2.2 during the ENAP comment resolution. |
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6.2.2.2 Service Specific Permissions (SSP)

The octet scheme allows the SSP format to accommodate current and future versions of the present document. The octet scheme for DENM SSP is constructed out of four octets as illustrated in Figure 4.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 0 |  |  |  |  |  |  |  | 1 |  |  |  |  |  |  |  | 2 |  |  |  |  |  |  |  | 3 |  |  |  |  |  |  |  |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Octet 0 | Octet 1 | Octet 2 | Octet 3 |

Figure 4: Format for the Octets

EXAMPLE of bit order: The decimal value 199 shall be represented as shown in Figure 5.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 |

Figure 5: Example of octet presentation

For each octet, the most significant bit (MSB) shall be the leftmost bit. The transmission order shall always be the MSB first. The first octet (octet 0 in Figure 4) shall control the SSP version and be interpreted in the following way:

 0: No version, length 1 octet; the value shall only be used for testing purposes.

 1: First version, length 4 octets.

 2 to 255: Reserved for Future Usage.

The SSP has a maximum length as specified in ETSI TS 103 097 [i.17]. The first octet shall reflect the version of the present document. As future versions of the present document are published, the first octet shall be accordingly incremented. The second to fourth octet (octet 1 to octet 3 in Figure 4) is based on the *causeCode* types described in the clause 7.1.4.

Length of SSP is the length of the Octet String. Table 8 presents the octet scheme for DENM SSPs.

When the ITS Application Identifier (ITS-AID) is set for the DEN basic service, the permissions shall be as defined in Table 9.

DENMs shall be signed using private keys associated to Authorization Tickets that contain SSPs of type BitmapSsp as specified in ETSI TS 103 097 (V1.3.1) [9].

Table 8: Octet Scheme for DENM SSPs

|  |  |
| --- | --- |
| Octet # | Description |
| 0 | SSP version control |
| 1 to 3 | Service-specific parameter |
| 4 to 30 | Reserved for Future Usage |

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# 2 References

## 2.1 Normative references

References are either specific (identified by date of publication and/or edition number or version number) or non‑specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

Referenced documents which are not found to be publicly available in the expected location might be found at <https://docbox.etsi.org/Reference>.

NOTE: While any hyperlinks included in this clause were valid at the time of publication, ETSI cannot guarantee their long term validity.

The following referenced documents are necessary for the application of the present document.

[1] SAE J2735 (2009-11-19): "Dedicated Short Range Communications (DSRC) Message Set Dictionary".

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 [9] ETSI TS 103 097 (V1.3.1): "Intelligent Transport Systems (ITS); Security; Security header and certificate formats".

## 2.2 Informative references

References are either specific (identified by date of publication and/or edition number or version number) or non‑specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

NOTE: While any hyperlinks included in this clause were valid at the time of publication, ETSI cannot guarantee their long term validity.

The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

[i.1] ETSI TR 102 638 (V1.1.1): "Intelligent Transport Systems (ITS); Vehicular Communications; Basic Set of Applications; Definitions".

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[i.18] ETSI TR 102 965 (V1.1.1): "Intelligent Transport Systems (ITS); Application object identifier (ITS-AID); Registration list".