**3GPP TSG-CT WG1 Meeting #146C1-240abc**

**Online, 22– 26 January 2024 (was C1-240250)**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **24.257** | **CR** | **0030** | **rev** | **1** | **Current version:** | **18.2.0** |  |
|  | | | | | | | | |
| *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:*** | Introducing SEALDD support | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei, HiSilicon | | | | | | | | | |
| ***Source to TSG:*** | CT1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | SEALDD | | | | |  | ***Date:*** | | | 2024-01-15 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | B |  | | | | | ***Release:*** | | | Rel-18 |
|  | *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)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | TS 23.433 provides requiremenbts on the need of support of SEAL data delivery (SEALDD) in Rel-18. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Introduction of support for SEALDD. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | SEALDD cannot be used by the UAS vertical applications. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 2, 3.2, 5, 6.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

\* \* \* 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".

[2] 3GPP TS 23.255: "Application layer support for Unmanned Aerial System (UAS); Functional architecture and information flows".

[3] 3GPP TS 23.256: "Support of Uncrewed Aerial Systems (UAS) connectivity, identification, and tracking; Stage 2".

[4] 3GPP TS 23.434: "Service Enabler Architecture Layer for Verticals (SEAL); Functional architecture and information flows".

[5] IETF RFC 9110:"HTTP Semantics".

[6] 3GPP TS 24.544: "Group Management - Service Enabler Architecture Layer for Verticals (SEAL); Protocol specification".

[7] 3GPP TS 24.545: "Location Management - Service Enabler Architecture Layer for Verticals (SEAL); Protocol specification".

[8] 3GPP TS 24.546: "Configuration Management - Service Enabler Architecture Layer for Verticals (SEAL); Protocol specification".

[9] 3GPP TS 24.547: "Identity Management - Service Enabler Architecture Layer for Verticals (SEAL); Protocol specification".

[10] 3GPP TS 24.548: "Network Resource Management - Service Enabler Architecture Layer for Verticals (SEAL); Protocol specification".

[11] 3GPP TS 23.032: "Universal Geographical Area Description (GAD)".

[r23543] 3GPP TS 24.543: "Data Delivery Management - Service Enabler Architecture Layer for Verticals (SEAL); Protocol specification".

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

## 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].

C2 Command and Control

DAA Detect And Avoid

GPSI Generic Public Subscription Identifier

LMS Location Management Server

SCM-S SEAL Configuration Management Server

SEAL Service Enabler Architecture Layer for Verticals

SEALDD SEAL Data Delivery

SLM-S SEAL Location Management Server

UAE UAS Application Enabler

UAS Uncrewed Arial System

UAV Uncrewed Aerial Vehicle

UAV-C Unmanned Aerial Vehicle-Controller

USS UAS Service Supplier

UTM UAS Traffic Management

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

# 5 SEAL services

The UAE layer can utilize following SEAL services to support UAS services:

a) group management as specified in 3GPP TS 24.544 [6];

b) location management as specified in 3GPP TS 24.545 [7];

c) configuration management as specified in 3GPP TS 24.546 [8];

d) identity management as specified in 3GPP TS 24.547 [9];

e) network resource management as specified in 3GPP TS 24.548 [10]; and

f) data delivery management as specified in 3GPP TS 24.543 [r24543].

Interactions between the UAE layer and the SEAL services are described in detail in clause 6.

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

## 6.1 General

This clause provides the procedures for UAS application communication between the UAE-C and the UAE-S and from a UAE-C to other UAE-C.

In order to send UAS signalling and application data for the procedures defined in this clause, the UAE-C and the UAE-S utilize the services defined by 3GPP TS 24.543 [r24543], e.g. SEALDD enabled signalling transmission connection procedures such as connection establishment, connection release.

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