**3GPP TSG-CT WG1 Meeting #124-eC1-20XXXX**

**Electronic meeting, 2-10 June 2020**

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| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
|  |
|  | **24.502** | **CR** | **0137** | **rev** | **1** | **Current version:** | **15.5.0** |  |
|  |
| *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:***  | Correcting reference |
|  |  |
| ***Source to WG:*** | Motorola Mobility, Lenovo |
| ***Source to TSG:*** | C1 |
|  |  |
| ***Work item code:*** | 5GS\_Ph1-CT |  | ***Date:*** | 2020-06-02 |
|  |  |  |  |  |
| ***Category:*** | **F** |  | ***Release:*** | Rel-15 |
|  | *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 canbe 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-12 (Release 12)**Rel-13 (Release 13)Rel-14 (Release 14)Rel-15 (Release 15)Rel-16 (Release 16)* |
|  |  |
| ***Reason for change:*** | The current added TS is not for NG-AP for non-3GPP access. |
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| ***Summary of change:*** | Corrected the reference to NG-AP for non-3GPP access TS. **There is no interoperability issue.** |
|  |  |
| ***Consequences if not approved:*** | Specification has an incorrect reference. |
|  |  |
| ***Clauses affected:*** | 2, 7.3.2.3 |
|  |  |
|  | **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:*** |  |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Next 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 23.501: "System Architecture for the 5G System; Stage 2".

[3] 3GPP TS 23.502: "Procedures for the 5G System; Stage 2".

[4] 3GPP TS 24.501: "Access-Stratum (NAS) protocol for 5G System (5GS); Stage 3".

[5] 3GPP TS 33.501: "Security architecture and procedures for 5G System".

[6] IETF RFC 7296: "Internet Key Exchange Protocol Version 2 (IKEv2)".

[7] 3GPP TS 24.302: "Access to the 3GPP Evolved Packet Core (EPC) via non-3GPP access networks; Stage 3".

[8] 3GPP TS 23.003: "Numbering, addressing and identification".

[9] IETF RFC 3748: "Extensible Authentication Protocol (EAP)".

[10] 3GPP TS 33.402: "3GPP System Architecture Evolution (SAE); Security aspects of non-3GPP accesses."

[11] IETF RFC 4303: "IP Encapsulating Security Payload (ESP)".

[12] IETF RFC 4301: "Security Architecture for the Internet Protocol".

[13] 3GPP TS 23.122: "Non-Access-Stratum (NAS) functions related to Mobile Station (MS) in idle mode".

[14] IETF RFC 2784: "Generic Routing Encapsulation (GRE)".

[15] IETF RFC 2890: "Key and Sequence Number Extensions to GRE".

[16] 3GPP TS 23.503: "Policy and Charging Control Framework for the 5G System".

[17] 3GPP TS 24.526: "User Equipment (UE) policies for 5G System (5GS); Stage 3".

[18] 3GPP TS 23.402: "Architecture enhancements for non-3GPP accesses".

[19] IEEE Std 802.11-2012: "IEEE Standard for Information technology - Telecommunications and information exchange between systems - Local and metropolitan area networks - Specific requirements - Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications".

[20] Wi-Fi Alliance: "Hotspot 2.0 (Release 2) Technical Specification, version 1.0.0", 2014-08-08.

[21] ITU-T Recommendation E.212: "The international identification plan for public networks and subscriptions", 2016-09-23.

[22] 3GPP TS 24.007: "Mobile radio interface signalling layer 3; General aspects".

[23] IETF RFC 4555: "IKEv2 Mobility and Multihoming Protocol (MOBIKE)".

[24] IETF RFC 791: "INTERNET PROTOCOL".

[25] IETF RFC 8200: "Internet Protocol, Version 6 (IPv6) Specification".

[26] IETF RFC 2474: "Definition of the Differentiated Services Field (DS Field) in the IPv4 and IPv6 Headers".

[27] IETF RFC 793: "Transmission Control Protocol".

[28] 3GPP TS 24.008: "Mobile radio interface Layer 3 specification; Core network protocols; Stage 3".

[29] Void

[XX] 3GPP TS 29.413: "Application of the NG Application Protocol (NGAP) to non-3GPP access".

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

#### 7.3.2.3 IKE SA and signalling IPsec SA establishment not accepted by the network

If IKE SA and signalling IPsec SA establishment is not accepted by the network, the UE receives from the N3IWF an IKE\_AUTH response message including a Notify payload with an error type.

Upon receiving the IKE\_AUTH response message with a Notify payload with an error type other than a CONGESTION Notify payload, the UE shall pass the error indication to the upper layer along with the encapsulated NAS messages, if any, within EAP/5G-NAS packet.

After the N3IWF receives from the UE an IKE\_AUTH request message, if the N3IWF does not accept the IKE SA and signalling IPsec SA establishment due to:

a) the AMF congestion as indicated in the OVERLOAD START message; or

b) the requested NSSAI included in the IKE\_AUTH request message, only including one or more S-NSSAIs indicated in the OVERLOAD START message;

where the OVERLOAD START message is specified in 3GPP TS 29.413[XX], the N3IWF shall construct an IKE\_AUTH response message including a CONGESTION Notify payload as defined in subclause 9.2.4.2 and a N3GPP\_BACKOFF\_TIMER Notify payload as defined in subclause 9.3.1.7. The N3IWF shall send the IKE\_AUTH response message to the UE.

Upon reception of the IKE\_AUTH response message including:

a) a CONGESTION Notify payload as defined in subclause 9.2.4.2; and

b) a N3GPP\_BACKOFF\_TIMER Notify payload as defined in subclause 9.3.1.7; and

after the UE authenticates the network or the N3IWF as specified in 3GPP TS 33.501 [5], the UE shall discard all states associated with the IKE SA and any child SAs that were negotiated using that IKE SA as specified in IETF RFC 7296 [6]. In addition, the UE shall inform the upper layers that the access stratum connection has been released, and:

a) if the back-off timer value in N3GPP\_BACKOFF\_TIMER Notify payload indicates neither zero nor deactivated, the UE shall start the Tw3 timer with the value provided and the UE shall not retry the IKE SA and signalling IPsec SA establishment procedure to the same N3IWF until:

- timer Tw3 expires;

- the UE is switched off; or

- the UICC containing the USIM is removed;

b) if the back-off timer value in N3GPP\_BACKOFF\_TIMER Notify payload indicates that this timer is deactivated, the UE shall not retry the IKE SA and signalling IPsec SA establishment procedure to the same N3IWF until:

- the UE is switched off; or

- the UICC containing the USIM is removed; and

c) if the back-off timer value in N3GPP\_BACKOFF\_TIMER Notify payload indicates zero, the UE may retry the IKE SA and signalling IPsec SA establishment procedure to an N3IWF from the same PLMN.

Upon receiving the IKE\_AUTH response message with a Notify payload with an error type, if the EAP-5G session establishment has already been started, the UE shall perform a local termination of the EAP-5G session.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* End of Change \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*