**3GPP TSG-SA3 Meeting #124 draft\_S3-253800-r1 was S3-253168**

**Wuhan, China, 13 – 17 October 2025**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **33.369** | **CR** | 0007 | **rev** | 1 | **Current version:** | **19.0.0** |  |
|  | | | | | | | | |
| *For* ***[HE](http://www.3gpp.org/3G_Specs/CRs.htm" \l "_blank)******[LP](http://www.3gpp.org/3G_Specs/CRs.htm" \l "_blank)*** *on using this form: comprehensive instructions can be found at  <http://www.3gpp.org/Change-Requests>.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network |  |

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|  | | | | | | | | | | |
| ***Title:*** | Add the key hierarchy to TS 33.369 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | ZTE Corporation | | | | | | | | | |
| ***Source to TSG:*** | S3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | AmbientIoT-SEC | | | | |  | ***Date:*** | | | 2025-9-22 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | F |  | | | | | ***Release:*** | | | Rel-19 |
|  | *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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | There are various keys for the AIOT services. It is better to provide a key hierarchy figure to show the meaning of the used keys. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Add the key hierarchy . | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | May be difficult to understand the meaning and the place of the keys. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.x(new) | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 \* \* \* \*

## 5.x Key hierarchy



Figure 5.x-1: Key hierarchy for AIoT service

The different layers of keys are the following:

- KAIOT\_root: The long-term credentials used for authentication.

- KAIOTF: This key is derived from KAIOT\_root and is used derive keys that to protect the command messages between the AIoT device and AIOTF.

- KCommand\_enc, KCommand\_int : The KCommand\_enc and KCommand\_int are used for protecting command messages,

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