**3GPP TSG-RAN WG3 Meeting #129bis *R3-257251***

Prague, Czech Republic, 13th ~17th Oct, 2025

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.413** | **CR** | **1321** | **Rev** | **1** | **Current version:** | **19.0.0** |  |
|  | | | | | | | | |
| *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 |  | Radio Access Network | **x** | Core Network | **X** |

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|  | | | | | | | | | | |
| ***Title:*** | Correction on A-IoT leftovers on IE details | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei, CMCC, China Unicom, China Telecom | | | | | | | | | |
| ***Source to TSG:*** | R3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | Ambient\_IoT\_Solutions-Core | | | | |  | ***Date:*** | | | 2025-10-16 |
|  |  | | | |  | |  | | |  |
| ***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-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19) Rel-20 (Release 20)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | As discussed in RAN3#129, the details of several IEs may need further discussion, and there are comment temporarily added in the asn.1 part.   * based on CT4 agreed CR C4-253537, RAN3 needs to do the following updates:   + **(1) update the encoding of *A-IoT Correlation Identifier* IE from OCTET STRING to INTEGER (0..65535, ...), and remove the related comment;**   + **(2) update the encoding of *AIOTF Identifier* IE from OCTET STRING to OCTET STRING (SIZE(16)), and remove the related comment;** * about the encoding of *Time Interval* IE”   + it is defined as INTEGER (1..256, ...) Unit: 0.1 second, it seems to be a reasonable design and no strong need to update; and it is needed to add reference to TS 23.369 for this IE.   + **(4) keep current encoding of *Time Interval* IE, and remove the comment related;** * about the encoding of *A-IoT Device Identification Requested* IE:   + current encoding of both the single device inventory branch and the group device inventory branch, is BIT STRING (SIZE(1..1024, ...)), we see no strong motivation to update them.   + **(5) keep the current encoding of the *A-IoT Device Identification Requested* IE, and remove the comment related;** | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Do the updates as below:  - update the encoding of A-IoT Correlation Identifier IE from OCTET STRING to INTEGER (0..65535, ...), and remove the related comment;  - update the encoding of AIOTF Identifier IE from OCTET STRING to OCTET STRING (SIZE(16)), and remove the related comment;  - keep current encoding of Time Interval IE, and remove the comment related, add reference to TS 23.369 for this IE;  - keep the current encoding of the A-IoT Device Identification Requested IE, and remove the comment related;  Impact Analysis:  Impact assessment towards the previous version of the specification (same release):  This CR has isolated impact with the previous version of the specification (same release) because it only updates some details for A-IoT newly introduced IEs. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Leftovers remain for the A-IoT related IEs. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 9.3.3.69, 9.3.3.70, 9.3.3.72, 9.4.5 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | | Rev1: undo the changes for the *Inventory Report Transfer* IE. | | | | | | | | |

***-----------------Start of the First Change-----------------***

#### 9.3.3.69 A-IoT Correlation Identifier

This IE uniquely identifies an A-IoT session within an AIOTF.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
| A-IoT Correlation Identifier | M |  | INTEGER (0..65535, ...) |  |

#### 9.3.3.70 AIOTF Identifier

This IE uniquely identifies the AIOTF.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
| AIOTF Identifier | M |  | OCTET STRING (SIZE(16)) | Coded as the *NfInstanceId* IE defined in TS 29.571 [35]. |

***-----------------Start of the Next Change-----------------***

#### 9.3.3.72 Inventory Assistance Information

This IE includes the assistance information for the A-IoT Inventory Service.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
| Expected D2R Message Size | M |  | INTEGER (1..256,…) | Unit: Byte.  This IE indicates the expected size of the A-IoT NAS PDU carried in Inventory Report. |
| Approximate Number of Target A-IoT Devices | O |  | INTEGER (1..65535, …) |  |
| Time Interval | O |  | INTEGER (1..256, ...) | Unit: 0.1 second.  This IE indicates the time interval as defined in TS 23.369 [60]. |

***-----------------Start of the Next Change-----------------***

### 9.4.5 Information Element Definitions

-- ASN1START

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Information Element Definitions

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

NGAP-IEs {

itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)

ngran-Access (22) modules (3) ngap (1) version1 (1) ngap-IEs (2) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

IMPORTS

id-AdditionalDLForwardingUPTNLInformation,

id-AdditionalULForwardingUPTNLInformation,

id-AdditionalDLQosFlowPerTNLInformation,

***//skip unchanged part***

AIoTAreaID ::= SEQUENCE {

pLMNidentity PLMNIdentity,

nID NID OPTIONAL,

aIoTAreaCode OCTET STRING (SIZE (3)),

iE-Extensions ProtocolExtensionContainer { { AIoTAreaID-ExtIEs} } OPTIONAL,

...

}

AIoTAreaID-ExtIEs NGAP-PROTOCOL-EXTENSION ::= {

...

}

AIoT-CorrelationIdentifier ::= INTEGER (0..65535, ...)

AIoT-FollowonCommandIndication ::= ENUMERATED {true, ...}

RAN-AIOT-Device-NGAP-ID ::= INTEGER (0..4294967295)

AIoT-CommandAssistanceInformation ::= SEQUENCE {

estimateofExpectedD2RMsgSize INTEGER (1..256, ...) OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { AIoT-CommandAssistanceInformation-ExtIEs} } OPTIONAL,

...

}

AIoT-CommandAssistanceInformation-ExtIEs NGAP-PROTOCOL-EXTENSION ::= {

...

}

AIoT-DeviceIdentificationRequested ::= CHOICE {

singleDevice BIT STRING (SIZE(1..1024, ...)),

groupDevices BIT STRING (SIZE(1..1024, ...)),

allDevices NULL,

choice-Extensions ProtocolIE-SingleContainer { { AIoT-DeviceIdentificationRequested-ExtIEs} }

}

AIoT-DeviceIdentificationRequested-ExtIEs NGAP-PROTOCOL-IES ::= {

...

}

AIoT-DeviceReportList ::= SEQUENCE (SIZE(1..maxnoofDevices)) OF AIoT-DeviceReportItem

AIoT-DeviceReportItem ::= SEQUENCE {

aIoT-NASPDU AIoT-NASPDU,

rAN-AIOT-Device-NGAP-ID RAN-AIOT-Device-NGAP-ID OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { AIoT-DeviceReportItem-ExtIEs} } OPTIONAL,

...

}

AIoT-DeviceReportItem-ExtIEs NGAP-PROTOCOL-EXTENSION ::= {

...

}

AIOTFIdentifier ::= OCTET STRING(SIZE (16))

AIOTFName ::= SEQUENCE {

aIOTFNameVisibleString AIOTFNameVisibleString OPTIONAL,

aIOTFNameUTF8String AIOTFNameUTF8String OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { AIOTFName-ExtIEs } } OPTIONAL,

...

}

AIOTFName-ExtIEs NGAP-PROTOCOL-EXTENSION ::= {

...

}

AIOTFNameVisibleString ::= VisibleString (SIZE(1..150, ...))

AIOTFNameUTF8String ::= UTF8String (SIZE(1..150, ...))

AIoT-InventoryAssistanceInformation ::= SEQUENCE {

expectedD2RMsgSize INTEGER (1..256, ...),

approximateNoofTargetDevices INTEGER (1..65535, ...) OPTIONAL,

timeInterval INTEGER (1..256, ...) OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { AIoT-InventoryAssistanceInformation-ExtIEs} } OPTIONAL,

...

}

AIoT-InventoryAssistanceInformation-ExtIEs NGAP-PROTOCOL-EXTENSION ::= {

...

}

AIoT-NASPDU ::= OCTET STRING

AIoT-ReaderReportList ::= SEQUENCE (SIZE(1..maxnoofReaders)) OF AIoT-ReaderReportItem

AIoT-ReaderReportItem ::= SEQUENCE {

readerIndex AIoT-ReaderIndex,

deviceReportList AIoT-DeviceReportList,

iE-Extensions ProtocolExtensionContainer { { AIoT-ReaderReportItem-ExtIEs} } OPTIONAL,

...

}

AIoT-ReaderReportItem-ExtIEs NGAP-PROTOCOL-EXTENSION ::= {

...

}

AIoT-ReaderIndex ::= INTEGER (1..65535, ...)

AIoT-RequestedReaderList ::= SEQUENCE (SIZE(1..maxnoofReaders)) OF AIoT-RequestedReaderItem

AIoT-RequestedReaderItem ::= SEQUENCE {

globalgNB-ID GlobalGNB-ID,

readerIndex AIoT-ReaderIndex,

iE-Extensions ProtocolExtensionContainer { { AIoT-RequestedReaderItem-ExtIEs} } OPTIONAL,

...

}

AIoT-RequestedReaderItem-ExtIEs NGAP-PROTOCOL-EXTENSION ::= {

...

}

AIoT-RequestedAIoTAreaList ::= SEQUENCE (SIZE(1..maxnoofAIoTAreas)) OF AIoTAreaID

AIoT-RequestedServiceAreaInformation ::= SEQUENCE {

requestedReaderList AIoT-RequestedReaderList OPTIONAL,

requestedAIoTAreaList AIoT-RequestedAIoTAreaList OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { AIoT-RequestedServiceAreaInformation-ExtIEs} } OPTIONAL,

...

}

AIoT-RequestedServiceAreaInformation-ExtIEs NGAP-PROTOCOL-EXTENSION ::= {

...

}

AIOTSessionReleaseCommandTransfer ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {AIOTSessionReleaseCommandTransferIEs} },

...

}

AIOTSessionReleaseCommandTransferIEs NGAP-PROTOCOL-IES ::= {

{ ID id-AIoT-CorrelationIdentifier CRITICALITY reject TYPE AIoT-CorrelationIdentifier PRESENCE mandatory }|

{ ID id-Cause CRITICALITY ignore TYPE Cause PRESENCE mandatory },

...

}

AIOTSessionReleaseCompleteTransfer ::= SEQUENCE {

correlationIdentifier AIoT-CorrelationIdentifier,

criticalityDiagnostics CriticalityDiagnostics OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {AIOTSessionReleaseCompleteTransfer-ExtIEs} } OPTIONAL,

...

}

AIOTSessionReleaseCompleteTransfer-ExtIEs NGAP-PROTOCOL-EXTENSION ::= {

...

}

AIOTSessionReleaseRequestTransfer ::= SEQUENCE {

correlationIdentifier AIoT-CorrelationIdentifier,

cause Cause,

iE-Extensions ProtocolExtensionContainer { {AIOTSessionReleaseRequestTransfer-ExtIEs} } OPTIONAL,

...

}

AIOTSessionReleaseRequestTransfer-ExtIEs NGAP-PROTOCOL-EXTENSION ::= {

...

}

AIoT-Support ::= ENUMERATED {aIoT-only, aIoT-and-NRUu, ...}

***//skip unchanged part***

InventoryReportTransfer ::= SEQUENCE {

correlationIdentifier AIoT-CorrelationIdentifier,

globalgNB-ID GlobalGNB-ID,

readerReportList AIoT-ReaderReportList,--the presence of the IE may be revisited--

inventoryCompleteIndication ENUMERATED {true, ...} OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { InventoryReportTransfer-ExtIEs} } OPTIONAL,

...

}

InventoryReportTransfer-ExtIEs NGAP-PROTOCOL-EXTENSION ::= {

...

}

***-----------------End of the Changes-----------------***