3GPP TSG-RAN WG3 Meeting #123 R3-240920

**Athens, GR, 26 Feb – 01 Mar, 2024**

**Agenda Item: 9.3.2**

**Source: Huawei**

**Title: Summary of offline discussions on CB: # 30\_IPSecTNL**

**Document for: Discussion and approval**

# Introduction

This contribution discusses the following CB.

**CB: # 30\_IPSecTNL**

**- Align with ASN.1**

**- Check abnormal cases**

(moderator - HW)

Summary of offline disc [R3-240920](Inbox\R3-240920.zip)

# 2 For the Chairman’s Notes

Proposal:

# 3 Discussion

## 3.1 CR history check

At RAN3-106 meeting, a set of CRs on the IPsec are agreed copied as follows.

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| [R3-197384](Docs\R3-197384.zip) | Support for setting up IPsec a priori in E1 (Ericsson) | CR0473r, TS 38.463 v15.5.0, Rel-15, Cat. F  - remove CP address  - add Nok,NokShB as co-signer  rev in [R3-197729](Inbox\R3-197729.zip) **Agreed unseen** |
| [R3-197385](Docs\R3-197385.zip) | Support for setting up IPSec a priori in F1 (Ericsson) | CR0518r, TS 38.473 v15.7.0, Rel-15, Cat. F  - remove CP address  - add HW as co-signer  rev in [R3-197730](Inbox\R3-197730.zip) **Agreed unseen** |
| [R3-197386](Docs\R3-197386.zip) | Support for setting up IPSec a priori in X2 (Ericsson) | CR1421r, TS 36.423 v15.7.0, Rel-15, Cat. F  - remove CP address  - add ZTE as co-signer  rev in [R3-197731](Inbox\R3-197731.zip) **Agreed unseen** |
| [R3-197290](Docs\R3-197290.zip) | Support for setting IPSec a priori in Xn (Ericsson) | CR0201r5, TS 38.423 v15.5.0, Rel-15, Cat. F  - remove CP address  rev in [R3-197732](Inbox\R3-197732.zip) **Agreed unseen** |

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It can be observed that:

* for the E1/F1/X2 CRs, the *IP-Sec Transport Layer Address* IE is “M” both the Tabular and ASN.1 ,
* while for Xn CR, in the Tabular, the IE is “M” in one parent IE, and is “O” in the other parent IE, and in ASN.1, it is “O, as copied below.

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| 9.2.3.96 TNL Configuration Info This IE is used for signalling IP addresses of IPSEc endpoints used for establishment of IPSec tunnels.   | IE/Group Name | Presence | Range | IE type and reference | Semantics description | | --- | --- | --- | --- | --- | | **Extended UP Transport Layer Addresses To Add List** |  | *0..1* |  |  | | **>Extended UP Transport Layer Addresses To Add Item** |  | *1..<maxnoofExtTLAs>* |  |  | | >>IP-Sec Transport Layer Address | M |  | Transport Layer Address  9.2.3.29 | Transport Layer Addresses for IP-Sec endpoint. | | **>>GTP Transport Layer Addresses To Add List** |  | *0..1* |  |  | | **>>>GTP Transport Layer Addresses To Add Item** |  | *1..<maxnoofGTPTLAs>* |  |  | | >>>>GTP Transport Layer Address Info | M |  | Transport Layer Address  9.3.2.29 | GTP Transport Layer Addresses for GTP end-points. | | **Extended UP Transport Layer Addresses To Remove List** |  | *0..1* |  |  | | **>Extended UP Transport Layer Addresses To Remove Item** |  | *0..<maxnoofExtTLAs>* |  |  | | >>IP-Sec Transport Layer Address | O |  | Transport Layer Address  9.2.3.29 | Transport Layer Addresses for IP-Sec endpoint. | | **>>GTP Transport Layer Addresses To Remove List** |  | *0..1* |  |  | | **>>>GTP Transport Layer Addresses To Remove Item** |  | *1..<maxnoofGTPTLAs>* |  |  | | >>>>GTP Transport Layer Address Info | M |  | Transport Layer Address  9.2.3.2 | GTP Transport Layer Addresses for GTP end-points. |   <<<<<<<<<<<<<<<<<<<< For Information Only >>>>>>>>>>>>>>>>>>>>  ExtTLAs ::= SEQUENCE (SIZE(1..maxnoofExtTLAs)) OF ExtTLA-Item  ExtTLA-Item ::= SEQUENCE {  iPsecTLA TransportLayerAddress OPTIONAL,  gTPTransportLayerAddresses GTPTLAs OPTIONAL,  iE-Extensions ProtocolExtensionContainer { {ExtTLA-Item-ExtIEs} } OPTIONAL,  ...  }  ExtTLA-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {  ...  } |

Based on online discussion, and considering that the *TNL Configuration Info* IE is used to establish the IPSec tunnels, the moderator has the following proposal:

**Proposal: for XnAP, the *IP-Sec Transport Layer Address* IE should be mandatory in both *Extended UP Transport Layer Addresses To Add Item* IE and the *Extended UP Transport Layer Addresses To Remove Item* IE.**

Question: Do you agree the above proposal?

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| **Company** | **Comment** |
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Moderator summary:

## 3.2 CR change

Based on the above proposal, the CRs should be revised accordingly. To be backward compatible, there are comments to add the abnormal conditions, in case the IP-Sec Transport Layer Address is not present in the TNL Configuration Info IE.

The draft CRs are dropped into the draft folder, you can provide comments below in the table, or go directly to the CR.

**Proposal: for XnAP, add abnormal conditions in case the IP-Sec Transport Layer Address is not present when the TNL Configuration Info IE is received.**

Question: Your views of the CRs in the draft folder?

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| **Company** | **Comment** |
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Moderator summary:

# 4 References

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| [R3-240305](Docs\R3-240305.zip) | Correction of IP-Sec Transport Layer Address (Huawei, China Telecom, China Unicom) | CR1153r, TS 38.423 v16.16.0, Rel-16, Cat. F  E///: Whether there is abnormal case when the IE does not exist  **CB: # 30\_IPSecTNL**  **- Align with ASN.1**  **- Check abnormal cases**  (moderator - HW)  Summary of offline disc [R3-240920](Inbox\R3-240920.zip) |
| [R3-240306](Docs\R3-240306.zip) | Correction of IP-Sec Transport Layer Address (Huawei, China Telecom, China Unicom) | CR1154r, TS 38.423 v17.7.0, Rel-17, Cat. A |
| [R3-240307](Docs\R3-240307.zip) | Correction of IP-Sec Transport Layer Address (Huawei, China Telecom, China Unicom) | CR1155r, TS 38.423 v18.0.0, Rel-18, Cat. A |