3GPP TSG-RAN WG3 Meeting #128 R3-253770

MT, MT, May 19 –23, 2025

Agenda Item: 9.2

Source: ZTE Corporation(moderator)

Title: SoD of UE context retrieval

Document for: Approval

# For the Chairman’s Notes

Propose to capture the following:

For RRC Reestablishment:

The PLMN selection action is performed by the UE and UE shall only consider candidate cells that belong to the same PLMN, During the UE context retrieval procedure, the old gNB does not update the served PLMN of the UE.

For RRC Resume procedure:

The PLMN selection action is performed by the UE, and the UE informs the new gNB of selected PLMN in RRCResumeComplete message. During the UE context retrieval procedure, the old gNB does not update the served PLMN of the UE.

[R3-253738](file:///D%3A%5C%E4%BC%9A%E8%AE%AE%E7%A1%AC%E7%9B%98%5CTSGR3_128%5CDocs%5CR3-253738.zip) can be enforced

To be continue

# Discussion

**CB: # 8\_UEContextPropogation**

**- The second change in** [**R3-253738**](file:///C%3A%5CUsers%5C10028422.A25553800%5CDesktop%5CRAN3%23128%5CInbox%5CR3-253738.zip) **is agreeable**

**- Check the Resume case on PLMN selection and when the MDT configuration/MRL needs to be transferred to the new gNB?**

(moderator - ZTE)

Summary of offline disc [R3-253770](file:///C%3A%5CUsers%5C10028422.A25553800%5CDesktop%5CRAN3%23128%5CInbox%5CR3-253770.zip)

## How the UE informs the gNB selected PLMN during RRC Resume procedure:



 UE triggered transition from RRC\_INACTIVE to RRC\_CONNECTED
(UE context retrieval success)

1. **PLMN selection is performed by the UE**. The UE has the capability to support PLMN selection while in RRC\_INACTIVE state. More importantly, when performing the RRC connection resume procedure, the UE obtains the list of available PLMNs (via the plmn-IdentityInfoList or npn-IdentityInfoList fields) from the **SIB1** broadcasted by the current cell.
2. **The UE notifies the new gNB of the selected PLMN's index via the RRCResumeComplete message[ANNEX 1]**. In a successful RRC connection resume procedure, the UE sends an RRCResumeComplete message to complete the process. This message includes an optional Information Element (IE) called **selectedPLMN-Identity**.
3. **Meaning of the selectedPLMN-Identity field**: The value of this field is the **index** of the PLMN that the UE selected from the list of PLMNs broadcasted in the SIB1 of the current cell (plmn-IdentityInfoList or npn-IdentityInfoList).
4. **During UE transmit from RRC-INACTIVE to RRC-CONNECTED procedure**:
	* The UE first initiates the procedure by sending an RRCResumeRequest message. This message contains the UE's identity (like I-RNTI) and the resume cause.
	* Upon receiving the RRCResumeRequest, the new gNB attempts to retrieve the UE context. This context contains the PLMN information the UE was served by before entering the RRC\_INACTIVE state.
	* The new send the RRCResume message to the UE.
	* **When the UE sends the RRCResumeComplete message**, it includes the selectedPLMN-Identity IE, sending the index of the PLMN it selected from the current cell's SIB1 list to the base station. This is the UE indicating to the new gNB its selected PLMN within the current cell's context, in addition to the network already knowing the UE's previous serving PLMN via context retrieval.The new gNB may update previous serving PLMN.

**Observation 1: During the RRC connection resume process, the PLMN selection action is performed by the UE, and the UE informs the new gNB of the index of the PLMN it selected from the SIB1 broadcast list by including the selectedPLMN-Identity Information Element in the RRCResumeComplete message.**

**Observation 2: During the UE context retrieval procedure, neither new gNB nor old gNB know the PLMN selected by the UE.**

**Question: Can we agree the following agreement?**

**It is UE itself select UE’s PLMN during RRC\_INACTIVE to RRC\_CONNECTED (Resume procedure).**

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| --- | --- |
| Company name | View |
| ZTE | Agree |
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If Question can be agreed , then the following proposal can be agreedable.

**Proposal :** [**R3-253273**](file:///D%3A%5C%E4%BC%9A%E8%AE%AE%E7%A1%AC%E7%9B%98%5CTSGR3_128%5CDocs%5CR3-253273.zip) **can be noted and** [**R3-253738**](file:///D%3A%5C%E4%BC%9A%E8%AE%AE%E7%A1%AC%E7%9B%98%5CTSGR3_128%5CDocs%5CR3-253738.zip) **can be agreed.**

# Conclusion, Recommendations [if needed]

If needed.

# Refrence

[1] [R3-253738](file:///D%3A%5C%E4%BC%9A%E8%AE%AE%E7%A1%AC%E7%9B%98%5CTSGR3_128%5CDocs%5CR3-253738.zip) Clarification for propagation of MDT Configuration in stage2 (ZTE Corporation,China Unicom,China Telecom,CMCC, Huawei)

[2] [R3-253273](file:///D%3A%5C%E4%BC%9A%E8%AE%AE%E7%A1%AC%E7%9B%98%5CTSGR3_128%5CDocs%5CR3-253273.zip) Clarification for propagation of roaming and access restrictions (Samsung)

# Annex 1 RRCResumeComplete message

#### – *RRCResumeComplete*

The *RRCResumeComplete* message is used to confirm the successful completion of an RRC connection resumption.

Signalling radio bearer: SRB1

RLC-SAP: AM

Logical channel: DCCH

Direction: UE to Network

*RRCResumeComplete* message

-- ASN1START

-- TAG-RRCRESUMECOMPLETE-START

RRCResumeComplete ::= SEQUENCE {

 rrc-TransactionIdentifier RRC-TransactionIdentifier,

 criticalExtensions CHOICE {

 rrcResumeComplete RRCResumeComplete-IEs,

 criticalExtensionsFuture SEQUENCE {}

 }

}

RRCResumeComplete-IEs ::= SEQUENCE {

 dedicatedNAS-Message DedicatedNAS-Message OPTIONAL,

 selectedPLMN-Identity INTEGER (1..maxPLMN) OPTIONAL,

 uplinkTxDirectCurrentList UplinkTxDirectCurrentList OPTIONAL,

 lateNonCriticalExtension OCTET STRING OPTIONAL,

 nonCriticalExtension RRCResumeComplete-v1610-IEs OPTIONAL

}

RRCResumeComplete-v1610-IEs ::= SEQUENCE {

 idleMeasAvailable-r16 ENUMERATED {true} OPTIONAL,

 measResultIdleEUTRA-r16 MeasResultIdleEUTRA-r16 OPTIONAL,

 measResultIdleNR-r16 MeasResultIdleNR-r16 OPTIONAL,

 scg-Response-r16 CHOICE {

 nr-SCG-Response OCTET STRING (CONTAINING RRCReconfigurationComplete),

 eutra-SCG-Response OCTET STRING

 } OPTIONAL,

 ue-MeasurementsAvailable-r16 UE-MeasurementsAvailable-r16 OPTIONAL,

 mobilityHistoryAvail-r16 ENUMERATED {true} OPTIONAL,

 mobilityState-r16 ENUMERATED {normal, medium, high, spare} OPTIONAL,

 needForGapsInfoNR-r16 NeedForGapsInfoNR-r16 OPTIONAL,

 nonCriticalExtension RRCResumeComplete-v1640-IEs OPTIONAL

}

RRCResumeComplete-v1640-IEs ::= SEQUENCE {

 uplinkTxDirectCurrentTwoCarrierList-r16 UplinkTxDirectCurrentTwoCarrierList-r16 OPTIONAL,

 nonCriticalExtension RRCResumeComplete-v1700-IEs OPTIONAL

}

RRCResumeComplete-v1700-IEs ::= SEQUENCE {

 needForGapNCSG-InfoNR-r17 NeedForGapNCSG-InfoNR-r17 OPTIONAL,

 needForGapNCSG-InfoEUTRA-r17 NeedForGapNCSG-InfoEUTRA-r17 OPTIONAL,

 nonCriticalExtension RRCResumeComplete-v1720-IEs OPTIONAL

}

RRCResumeComplete-v1720-IEs ::= SEQUENCE {

 uplinkTxDirectCurrentMoreCarrierList-r17 UplinkTxDirectCurrentMoreCarrierList-r17 OPTIONAL,

 nonCriticalExtension RRCResumeComplete-v1800-IEs OPTIONAL

}

RRCResumeComplete-v1800-IEs ::= SEQUENCE {

 needForInterruptionInfoNR-r18 NeedForInterruptionInfoNR-r18 OPTIONAL,

 musim-CapRestrictionInd-r18 ENUMERATED {true} OPTIONAL,

 flightPathInfoAvailable-r18 ENUMERATED {true} OPTIONAL,

 measConfigReportAppLayerAvailable-r18 ENUMERATED {true} OPTIONAL,

 nonCriticalExtension SEQUENCE {} OPTIONAL

}

-- TAG-RRCRESUMECOMPLETE-STOP

-- ASN1STOP

|  |
| --- |
| *RRCResumeComplete-IEs* field descriptions |
| ***idleMeasAvailable***Indication that the UE has idle/inactive measurement report available. |
| ***measConfigReportAppLayerAvailable***Indication that the UE has stored one or more application layer measurement reports while the UE was in RRC\_IDLE/RRC\_INACTIVE state and/or that the UE is configured with at least one application layer measurement configuration with *configforRRC-IdleInactive* set to *true*. |
| ***measResultIdleEUTRA***EUTRA measurement results performed during RRC\_INACTIVE. |
| ***measResultIdleNR***NR measurement results performed during RRC\_INACTIVE. |
| ***musim-CapRestrictionInd***This field indicates the UE temporary capability restriction due to MUSIM operation. |
| ***needForGapsInfoNR***This field is used to indicate the measurement gap requirement information of the UE for NR target bands. |
| ***needForGapNCSG-InfoEUTRA***This field is used to indicate the measurement gap and NCSG requirement information of the UE for E‑UTRA target bands |
| ***needForGapNCSG-InfoNR***This field is used to indicate the measurement gap and NCSG requirement information of the UE for NR target bands |
| ***needForInterruptionInfoNR***This field indicates whether interruption is needed while performing measurement on NR target bands without measurement gap. |
| ***selectedPLMN-Identity***Index of the PLMN selected by the UE from the *plmn-IdentityInfoList* or *npn-IdentityInfoList* fields included in *SIB1*. |
| ***uplinkTxDirectCurrentList***The Tx Direct Current locations for the configured serving cells and BWPs if requested by the NW (see *reportUplinkTxDirectCurrent* in *CellGroupConfig*). |
| ***uplinkTxDirectCurrentMoreCarrierList***The Tx Direct Current locations for the configured intra-band CA requested by *reportUplinkTxDirectCurrentMoreCarrier-r17*. |
| ***uplinkTxDirectCurrentTwoCarrierList***The Tx Direct Current locations for the configured uplink intra-band CA with two carriers if requested by the NW (see *reportUplinkTxDirectCurrentTwoCarrier-r16* in *CellGroupConfig*). |