**3GPP TSG-RAN3 Meeting #128 R3-255855**

**Bengaluru, IN, 25-29 Aug 2025**

Title: (TP to BLCR 38.423) SBFD on UE to UE CLI

Source: ZTE Corporation, Ericsson

Agenda Item: 19.2

Document for: Other

# 1 Introduction

This TP is used to capture the RAN3 agreements on UE to UE CLI:

**Add a new indication in CLI INDICATION procedure for the gNB serving victim UEs to request for SRS resource configuration from the receiving gNBs.**

**Use the following IEs for gNB1 serving aggressor UEs to provide SRS-Resource configuration to gNB2 serving victim UEs:**

**- XnAP: Served Cell Information NR IE**

**- F1AP: Served Cell Information IE (DU to CU), Neighbour Cell Information List IE in GNB-CU CONFIGURATION UPDATE message (CU to DU).**

# 2 TP

**=============================Start of change==============================**

#### 9.1.3.y CLI INDICATION

This message is sent by NG-RAN node1 to NG-RAN node2 to report the results of the CLI measurements or to indicate the need for SRS Resource Configuration information.

Direction: NG-RAN node1 → NG-RAN node2.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| --- | --- | --- | --- | --- | --- | --- |
| Message Type | M |  | 9.2.3.1 |  | YES | ignore |
| **CLI Measurement Result** |  | *1* |  |  | YES | ignore |
| **>CLI Measurement Result Item** |  | *1 .. < maxnoofCellsinNG-RANnode >* |  |  | YES | ignore |
| >>Cell ID | M |  | Global NG-RAN Cell Identity9.2.2.27 |  | – |  |
| >>SSB index | O |  | INTEGER (0..63) | Strongest DL SSB beam information | – |  |
| >>NZP CSI-RS Resource Indication | O |  | INTEGER (1..64) | Strongest DL NZP CSI-RS beam information | – |  |
| >>CLI Mitigation Indication | O |  | ENUMERATED (true, …) | Indicates to request CLI mitigation | – |  |
| SRS Resource Indication | O |  | ENUMERATED (true, …) | Indication to NG-RAN node2 that SRS-Resource configuration information is needed | - |  |

|  |  |
| --- | --- |
| Range bound | Explanation |
| maxnoofCellsinNG-RANnode | Maximum no. cells that can be served by a NG-RAN node. Value is 16384. |

**=============================Next change==============================**

#### 9.2.2.11 Served Cell Information NR

This IE contains cell configuration information of an NR cell that a neighbouring NG-RAN node may need for the Xn AP interface.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| --- | --- | --- | --- | --- | --- | --- |
| NR-PCI | M |  | INTEGER (0..1007, …) | NR Physical Cell ID | – |  |
| NR CGI | M |  | 9.2.2.7 |  | – |  |
| TAC | M |  | 9.2.2.5 | Tracking Area Code | – |  |
| RANAC | O |  | RAN Area Code9.2.2.6 |  | – |  |
| **Broadcast PLMNs** |  | *1..<maxnoofBPLMNs>* |  | Broadcast PLMNs contained in the *SIB1* message as specified in TS 38.331[10], associated to the NR Cell Identity in the *NR CGI* IE. | – |  |
| >PLMN Identity | M |  | 9.2.2.4 |  | – |  |
| CHOICE *NR-Mode-Info* | M |  |  |  | – |  |
| >*FDD* |  |  |  |  |  |  |
| >>**FDD Info** |  | *1* |  |  | – |  |
| >>>UL NR Frequency Info | M |  | NR Frequency Info9.2.2.19 | This IE is ignored for NR operating bands for which uplink range of NREF is not defined in section 5.4.2.3 of TS 38.104 [24]. | – |  |
| >>>DL NR Frequency Info | M |  | NR Frequency Info9.2.2.19 |  | – |  |
| >>>UL Transmission Bandwidth | M |  | NR Transmission Bandwidth9.2.2.20 | This IE is ignored for NR operating bands for which uplink range of NREF is not defined in section 5.4.2.3 of TS 38.104 [24]. | – |  |
| >>>DL Transmission Bandwidth | M |  | NR Transmission Bandwidth9.2.2.20 |  | – |  |
| >>>UL Carrier List  | O |  | NR Carrier List9.2.2.63 | If included, the *UL Transmission Bandwidth* IE shall be ignored. | YES | ignore |
| >>>DL Carrier List | O |  | NR Carrier List9.2.2.63 | If included, the *DL Transmission Bandwidth* IE shall be ignored. | YES | ignore |
| >>>gNB-DU Cell Resource Configuration-FDD-UL | O |  | gNB-DU Cell Resource Configuration9.2.2.95 | Contains FDD UL resource configuration of gNB-DU’s cell. Only applicable if the gNB-DU is an IAB-DU or an IAB-donor-DU. | YES | ignore |
| >>>gNB-DU Cell Resource Configuration-FDD-DL | O |  | gNB-DU Cell Resource Configuration9.2.2.95 | Contains FDD DL resource configuration of gNB-DU’s cell. Only applicable if the gNB-DU is an IAB-DU or an IAB-donor-DU. | YES | ignore |
| >*TDD* |  |  |  |  |  |  |
| >>**TDD Info** |  | *1* |  |  | – |  |
| >>>Frequency Info | M |  | NR Frequency Info9.2.2.19 |  | – |  |
| >>>Transmission Bandwidth | M |  | NR Transmission Bandwidth9.2.2.20 | This IE is ignored if the *Transmission Bandwidth asymmetric* IE is present. | – |  |
| >>>Intended TDD DL-UL Configuration NR | O |  | 9.2.2.40 |  | YES | ignore |
| >>>TDD UL-DL Configuration Common NR  | O |  | OCTET STRING | Includes the *tdd-UL-DL-ConfigurationCommon* contained in the *SIB1* message as defined in TS 38.331 [10] | YES | ignore |
| >>>Carrier List  | O |  | NR Carrier List9.2.2.63 | If included, the *Transmission Bandwidth* IE shall be ignored. | YES | ignore |
| >>>gNB-DU Cell Resource Configuration-TDD | O |  | gNB-DU Cell Resource Configuration9.2.2.95 | Contains TDD resource configuration of gNB-DU’s cell. Only applicable if the gNB-DU is an IAB-DU or an IAB-donor-DU. | YES | ignore |
| **>>>Transmission Bandwidth asymmetric** |  | *0..1* |  | Indicates the asymmetric UL and DL transmission bandwidth. | YES | ignore |
| >>>>UL Transmission Bandwidth | M |  | NR Transmission Bandwidth9.2.2.20 |  | – |  |
| >>>>DL Transmission Bandwidth | M |  | NR Transmission Bandwidth9.2.2.20 |  | – |  |
| >>>SBFD Configuration | O |  | FFS (pending on RAN2 progress) |  | YES | ignore |
| Measurement Timing Configuration | M |  | OCTET STRING | Includes the *MeasurementTimingConfiguration* inter-node message for the served cell, as defined in TS 38.331 [10]. | – |  |
| <<<<SKIP UNRELATED PART>>>> |
| Barring Exemption for Emergency Call Information | O |  | ENUMERATED (true, ...) | Corresponds to information provided in the *barringExemptEmergencyCall* contained in the *SIB1* message as defined in 38.331 [10]. | YES | ignore |
| NZP CSI-RS Resources Configuration | O |  | 9.2.2.x2 |  | YES | ignore |
| SRS Resource Configuration List | O |  | 9.2.2.x3 |  | YES | ignore |

| Range bound | Explanation |
| --- | --- |
| maxnoofBPLMNs | Maximum no. of broadcast PLMNs by a cell. Value is 12. |
| maxnoofMBSFSAs | Maximum no. of MBS FSAs by one gNB. Value is 256. |
| maxnoofNR-UChannelIDs | Maximum no. NR-U channel IDs in a cell. Value is 16. |
| maxnoofMTCItems | Maximum no. of measurement timing configurations associated with the neighbour cell. Value is 16. |
| maxnoofCSIRSconfigurations | Maximum number of CSI RS configurations reported in the MTC. Value is 96 |
| maxnoofCSIRSneighbourCells | Maximum number of cells neighbouring a CSI-RS coverage area. Value is 16 |
| maxnoofCSIRSneighbourCellsInMTC | Maximum number of CSI-RS coverage areas neighbouring a specific CSI-RS coverage area. Value is 16 |

**=============================Next change==============================**

#### 9.2.2.x3 SRS Resource Configuration List

This IE contains a list of SRS-Resource of UEs in the current cell.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
| **SRS Resource Configuration List** |  | *1* |  |  |
| **>SRS Resource Configuration Item** |  | *1..<maxnoofSRS-Resource>* |  |  |
| >>SRS Resource | M |  | OCTET STRING | Includes the *SRS-Resource* IE as defined in TS38.331[10]. |

|  |  |
| --- | --- |
| Range bound | Explanation |
| maxnoofSRS-Resource | Maximum number of SRS Resource. Value is 64 |

**=============================Next change==============================**

9.3.4 PDU Definitions

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

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-- PDU definitions for XnAP.

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

XnAP-PDU-Contents {

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

ngran-access (22) modules (3) xnap (2) version1 (1) xnap-PDU-Contents (1) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

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

--

-- IE parameter types from other modules.

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

IMPORTS

 ActivationIDforCellActivation,

 AMF-Region-Information,

**<<<<SKIP UNRELATED PART>>>>**

 PDUSessionsListToBeReleased-UPError,

 UserPlaneFailureIndication,

 SRSPositioningConfigOrActivationRequest,

 NRPPaPositioningInformation,

 CLI-MeasurementResult-List,

SRS-Resource-Indication

FROM XnAP-IEs

 PrivateIE-Container{},

 ProtocolExtensionContainer{},

 ProtocolIE-Container{},

 ProtocolIE-ContainerList{},

 ProtocolIE-ContainerPair{},

 ProtocolIE-ContainerPairList{},

 ProtocolIE-Single-Container{},

 XNAP-PRIVATE-IES,

 XNAP-PROTOCOL-EXTENSION,

 XNAP-PROTOCOL-IES,

 XNAP-PROTOCOL-IES-PAIR

FROM XnAP-Containers

 id-A2XPC5QoSParameters,

 id-ActivatedServedCells,

**<<<<SKIP UNRELATED PART>>>>**

 id-UserPlaneFailureIndication,

 id-SRSPositioningConfigOrActivationRequest,

 id-NRPPaPositioningInformation,

 id-CLI-MeasurementResult-List,

id-SRS-Resource-Indication,

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-- CLI Indication

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

CLI-Indication ::= SEQUENCE {

 protocolIEs ProtocolIE-Container {{CLI-Indication-IEs}},

 ...

}

CLI-Indication-IEs XNAP-PROTOCOL-IES ::= {

 { ID id-CLI-MeasurementResult-List CRITICALITY ignore TYPE CLI-MeasurementResult-List PRESENCE optional}|

{ ID id-SRS-Resource-Indication CRITICALITY ignore TYPE SRS-Resource-Indication PRESENCE optional},

 ...

}

END

-- ASN1STOP

**=============================Next change==============================**

9.3.5 Information Element definitions

-- ASN1START

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

--

-- Information Element Definitions

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

XnAP-IEs {

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

ngran-access (22) modules (3) xnap (2) version1 (1) xnap-IEs (2) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

IMPORTS

 id-CNTypeRestrictionsForEquivalent,

 id-CNTypeRestrictionsForServing,

**<<<<SKIP UNRELATED PART>>>>**

 id-NRPPaPositioningInformation,

 id-SBFD-Configuration,

 id-NZP-CSI-RS-Resources-Config,

id-SRS-Resource-Configurtaion-List,

**=============================Next change==============================**

 maxFailedCellMeasObjects,

 maxFailedMeasPerNode,

 maxnoofUEReports,

 maxnoofCandidateRelayUEs,

 maxnoofCAGforMDT,

 maxnoofMDTSNPNs,

 maxnoofSecurityConfigurations,

 maxnoofRSPPQoSFlows,

 maxnoofNZP-CSI-RS-ResourcesPerSet,

maxnoofSRS-Resource

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SRS-Resource-Indication ::= ENUMERATED {true, ...}

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-- S

SRS-Resource-Configuration-List ::= SEQUENCE (SIZE(1..maxnoofSRS-Resources)) OF SRS-Resource-Configuration-Item

SRS-Resource-Configuration-Item ::= SEQUENCE {

 SRS-Resource OCTET STRING,

 iE-Extensions ProtocolExtensionContainer { {SRS-Resource-Configuration-Item-ExtIEs} } OPTIONAL,

 ...

}

SRS-Resource-Configuration-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

 ...

}

**=============================Next change==============================**

-- Served Cells NR IEs

ServedCellInformation-NR ::= SEQUENCE {

 nrPCI NRPCI,

 cellID NR-CGI,

 tac TAC,

 ranac RANAC OPTIONAL,

 broadcastPLMN BroadcastPLMNs,

 nrModeInfo NRModeInfo,

 measurementTimingConfiguration OCTET STRING,

 connectivitySupport Connectivity-Support,

 iE-Extensions ProtocolExtensionContainer { {ServedCellInformation-NR-ExtIEs} } OPTIONAL,

 ...

}

ServedCellInformation-NR-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

 { ID id-BPLMN-ID-Info-NR CRITICALITY ignore EXTENSION BPLMN-ID-Info-NR PRESENCE optional }|

 { ID id-ConfiguredTACIndication CRITICALITY ignore EXTENSION ConfiguredTACIndication PRESENCE optional }|

 { ID id-SSB-PositionsInBurst CRITICALITY ignore EXTENSION SSB-PositionsInBurst PRESENCE optional }|

 { ID id-NRCellPRACHConfig CRITICALITY ignore EXTENSION NRCellPRACHConfig PRESENCE optional }|

 { ID id-NPN-Broadcast-Information CRITICALITY reject EXTENSION NPN-Broadcast-Information PRESENCE optional }|

 { ID id-CSI-RSTransmissionIndication CRITICALITY ignore EXTENSION CSI-RSTransmissionIndication PRESENCE optional }|

 { ID id-SFN-Offset CRITICALITY ignore EXTENSION SFN-Offset PRESENCE optional }|

 { ID id-Supported-MBS-FSA-ID-List CRITICALITY ignore EXTENSION Supported-MBS-FSA-ID-List PRESENCE optional }|

 { ID id-NR-U-ChannelInfo-List CRITICALITY ignore EXTENSION NR-U-ChannelInfo-List PRESENCE optional }|

 { ID id-Additional-Measurement-Timing-Configuration-List CRITICALITY ignore EXTENSION Additional-Measurement-Timing-Configuration-List PRESENCE optional }|

 { ID id-Redcap-Bcast-Information CRITICALITY ignore EXTENSION Redcap-Bcast-Information PRESENCE optional }|

 { ID id-eRedcap-Bcast-Information CRITICALITY ignore EXTENSION ERedcap-Bcast-Information PRESENCE optional }|

 { ID id-MobileIABCell CRITICALITY ignore EXTENSION MobileIABCell PRESENCE optional }|

 { ID id-XR-Bcast-Information CRITICALITY ignore EXTENSION XR-Bcast-Information PRESENCE optional }|

 { ID id-BarringExemptionforEmerCallInfo CRITICALITY ignore EXTENSION BarringExemptionforEmerCallInfo PRESENCE optional }|

 { ID id-NZP-CSI-RS-Resources-Config CRITICALITY ignore EXTENSION NZP-CSI-RS-Resources-Config PRESENCE optional }|

 { ID id-SRS-Resource-Configurtaion-List CRITICALITY ignore EXTENSION SRS-Resource-Configurtaion-List PRESENCE optional },

...

}

**=============================Next change==============================**

9.3.7 Constant definitions

-- ASN1START

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

--

-- Constant definitions

--

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

XnAP-Constants {

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

ngran-Access (22) modules (3) xnap (2) version1 (1) xnap-Constants (4) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

IMPORTS

 ProcedureCode,

 ProtocolIE-ID

FROM XnAP-CommonDataTypes;

**<<<<SKIP UNRELATED PART>>>>**

maxnoofCAGforMDT INTEGER ::= 256

maxnoofMDTSNPNs INTEGER ::= 16

maxnoofSecurityConfigurations INTEGER ::= 8

maxnoofRSPPQoSFlows INTEGER ::= 2048

maxnoofNZP-CSI-RS-ResourcesPerSet INTEGER ::= 64

maxnoofSRS-Resource INTEGER ::= 64

**=============================Next change==============================**

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

--

-- IEs

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

id-ActivatedServedCells ProtocolIE-ID ::= 0

**<<<<SKIP UNRELATED PART>>>>**

id-BarringExemptionforEmerCallInfo ProtocolIE-ID ::= 471

id-Transmission-Bandwidth-asymmetric ProtocolIE-ID ::= 472

id-SRSPositioningConfigOrActivationRequest ProtocolIE-ID ::= 473

id-NRPPaPositioningInformation ProtocolIE-ID ::= 474

id-CLI-MeasurementResult-List ProtocolIE-ID ::= FFS

id-SBFD-Configuration ProtocolIE-ID ::= FFS

id-NZP-CSI-RS-Resources-Config ProtocolIE-ID ::= FFS

id-SRS-Resource-Configuration-List ProtocolIE-ID ::= FFS

END

-- ASN1STOP

**=============================End of change==============================**