3GPP TSG-RAN WG3 Meeting #125bis R3-245821

**Hefei, China, October 14th – 18th, 2024**

**Agenda item: 10.4**

**Source: Samsung, Nokia, ZTE, Lenovo**

**Title: (TP for SON BLCR for 38.423) MR-DC SCG failure**

**Document for: Discussion and Decision**

# **1 Introduction**

The contribution provided a TP for TS38.423 on MRO for MR-DC SCG failure.

# **TP for BLCR TS38.423**

8.3.17.2 Successful Operation

****

**Figure 8.3.17.2-1: SCG Failure Information Report, successful operation**

The M-NG-RAN node initiates the procedure by sending the SCG FAILURE INFORMATION REPORT message to the S-NG-RAN node. Upon receiving the message, the S-NG-RAN node shall assume that a PSCell change failure event was detected.

The SCG FAILURE INFORMATION REPORT message may include:

- the *SN Mobility Information* IE, if the *SN Mobility Information* IE was sent for the PSCell change procedure from the S-NG-RAN node;

- the *Source PSCell* *CGI* IE, if the *Source PSCell* *CGI* IE was sent for the PSCell change procedure from the S-NG-RAN node.

If the SCG FAILURE INFORMATION REPORT message includes the *Source PSCell* *CGI* IE, the S-NG-RAN node shall, if supported, store the information.

If the SCG FAILURE INFORMATION REPORT message includes the *Failed PSCell* *CGI* IE, the S-NG-RAN node shall, if supported, store the information and act as specified in TS 38.300 [9].

If the SCG FAILURE INFORMATION REPORT message includes the *Time SCG Failure* IE, the S-NG-RAN node shall, if supported, store the information and act as specified in TS 38.300 [9].

If received, the S-NG-RAN node uses the above information for SCG failure reason detection and optimisation.

<<<<<<<<<<<<<<<<<<<< Next change >>>>>>>>>>>>>>>>>

9.1.2.29 SCG FAILURE INFORMATION REPORT

This message is sent by M-NG-RAN node to S-NG-RAN node to report a PSCell change failure event.

Direction: M-NG-RAN node → S-NG-RAN node.

| **IE/Group Name** | **Presence** | **Range** | **IE type and reference** | **Semantics description** | **Criticality** | **Assigned Criticality** |
| --- | --- | --- | --- | --- | --- | --- |
| Message Type | M |  | 9.2.3.1 |  | YES | ignore |
| M-NG-RAN node UE XnAP ID | M |  | NG-RAN node UE XnAP ID  9.2.3.16 | Allocated at the M-NG-RAN node. | YES | ignore |
| S-NG-RAN node UE XnAP ID | M |  | NG-RAN node UE XnAP ID  9.2.3.16 | Allocated at the S-NG-RAN node. | YES | ignore |
| Source PSCell CGI | O |  | Global NG-RAN Cell Identity  9.2.2.27 | NG-RAN CGI of source PSCell for PSCell change procedure | YES | ignore |
| Failed PSCell CGI | O |  | Global NG-RAN Cell Identity  9.2.2.27 | NG-RAN CGI of PSCell where SCG failure occurs for PSCell change procedure | YES | ignore |
| SCG Failure Report Container | M |  | OCTET STRING | Contains the *SCGFailureInformation* message or the *SCGFailureInformationEUTRA* message as defined in TS 38.331 [10] or the *SCGFailureInformation* message or the *SCGFailureInformationNR* message as defined in TS 36.331 [14] | YES | ignore |
| SN Mobility Information | O |  | BIT STRING (SIZE (32)) | Information related to the PSCell change. It’s provided by S-NG-RAN node in order to enable later analysis of the conditions that led to wrong PSCell change. | YES | ignore |
| CPAC Configuration | O |  | 9.2.2.103 |  | YES | ignore |
| Time SCG Failure | O |  | INTEGER (0..1023) | *timeSCGFailure* included in *SCGFailureInformationNR* message as defined in TS36.331 [9] | YES | ignore |

<<<<<<<<<<<<<<<<<<<< Next change >>>>>>>>>>>>>>>>>

### 9.3.4 PDU Definitions

-- ASN1START

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

--

-- PDU definitions for XnAP.

--

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

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*skip unchanged part\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

UserPlaneFailureIndication,

SRSPositioningConfigOrActivationRequest,

NRPPaPositioningInformation,

TimeSCG-Failure

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*skip unchanged part\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

id-UserPlaneFailureIndication,

id-SRSPositioningConfigOrActivationRequest,

id-NRPPaPositioningInformation,

id-TimeSCG-Failure,

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*skip unchanged part\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

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

--

-- SCG FAILURE INFORMATION REPORT

--

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

ScgFailureInformationReport ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ ScgFailureInformationReport-IEs}},

...

}

ScgFailureInformationReport-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-M-NG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-S-NG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-SourcePSCellCGI CRITICALITY ignore TYPE GlobalNG-RANCell-ID PRESENCE optional }|

{ ID id-FailedPSCellCGI CRITICALITY ignore TYPE GlobalNG-RANCell-ID PRESENCE optional }|

{ ID id-SCGFailureReportContainer CRITICALITY ignore TYPE SCGFailureReportContainer PRESENCE mandatory}|

{ ID id-SNMobilityInformation CRITICALITY ignore TYPE SNMobilityInformation PRESENCE optional }|

{ ID id-CPACConfiguration CRITICALITY ignore TYPE CPACConfiguration PRESENCE optional }|

{ ID id-TimeSCG-Failure CRITICALITY ignore TYPE TimeSCG-Failure PRESENCE optional }

,

...

}

<<<<<<<<<<<<<<<<<<<< Next change >>>>>>>>>>>>>>>>>

### 9.3.5 Information Element definitions

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*skip unchanged part\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Threshold-RSRQ ::= INTEGER(0..127)

Threshold-RSRP ::= INTEGER(0..127)

Threshold-SINR ::= INTEGER(0..127)

TimeSCG-Failure ::= INTEGER (0..1023)

TimeSinceFailure ::= INTEGER (0..172800, ...)

<<<<<<<<<<<<<<<<<<<< Next change >>>>>>>>>>>>>>>>>

### 9.3.7 Constant definitions

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*skip unchanged part\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

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

id-SRSPositioningConfigOrActivationRequest ProtocolIE-ID ::= 473

id-NRPPaPositioningInformation ProtocolIE-ID ::= 474

id-TimeSCG-Failure ProtocolIE-ID ::= xxx

END

-- ASN1STOP

<<<<<<<<<<<<<<<<<<<< End of change >>>>>>>>>>>>>>>>>