**3GPP TSG-RAN3 Meeting # 114-e *R3-216002***

**1st - 11th November 2021**

**Agenda Item: 19.2.2**

**Source: Ericsson**

**Title: TP to NRPPa BL CR: addition of cause value**

**Document for: Other**

# Introduction

It was agreed in R3-5877 to add a new cause value in NRPPa for when the UE has moved to another serving gNB node

TP to NRPPa BL CR

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Beginning of change in TS 38.455\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

9.2.1 Cause

The purpose of the cause information element is to indicate the reason for a particular event for the whole protocol.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **IE/Group Name** | **Presence** | **Range** | **IE Type and Reference** | **Semantics Description** |
| CHOICE *Cause Group* | M |  |  |  |
| *>Radio Network Layer* |  |  |  |  |
| >>Radio Network Layer Cause | M |  | ENUMERATED  (Unspecified, Requested Item not Supported, Requested Item Temporarily not Available,  ..., UE context unavailable) |  |
| >*Protocol* |  |  |  |  |
| >>Protocol Cause | M |  | ENUMERATED (Transfer Syntax Error, Abstract Syntax Error (Reject), Abstract Syntax Error (Ignore and Notify), Message not Compatible with Receiver State,  Semantic Error, Unspecified,  Abstract Syntax Error (Falsely Constructed Message),  ...) |  |
| *>Misc* |  |  |  |  |
| >>Miscellaneous Cause | M |  | ENUMERATED (Unspecified,  ...) |  |

The meaning of the different cause values is described in the following table. In general, "not supported" cause values indicate that the concerned capability is missing. On the other hand, "not available" cause values indicate that the concerned capability is present, but insufficient resources were available to perform the requested action.

|  |  |
| --- | --- |
| **Radio Network Layer cause** | **Meaning** |
| Unspecified | Sent when none of the above cause values applies but still the cause is Radio Network Layer related |
| Requested Item not Supported | The NG-RAN node does not support the requested measurement object, or cannot provide the requested information item. |
| Requested Item Temporarily not Available | The NG-RAN node can temporarily not provide the requested measurement object or information item. |
| UE context unavailable | The UE context is unavailable due to serving NG-RAN node change. |

|  |  |
| --- | --- |
| **Protocol cause** | **Meaning** |
| Abstract Syntax Error (Reject) | The received message included an abstract syntax error and the concerned criticality indicated "reject" (see sub clause 10.3) |
| Abstract Syntax Error (Ignore and Notify) | The received message included an abstract syntax error and the concerned criticality indicated "ignore and notify" (see sub clause 10.3) |
| Abstract syntax error (falsely constructed message) | The received message contained IEs or IE groups in wrong order or with too many occurrences (see sub clause 10.3) |
| Message not Compatible with Receiver State | The received message was not compatible with the receiver state (see sub clause 10.4) |
| Semantic Error | The received message included a semantic error (see sub clause 10.4) |
| Transfer Syntax Error | The received message included a transfer syntax error (see sub clause 10.2) |
| Unspecified | Sent when none of the above cause values applies but still the cause is Protocol related |

|  |  |
| --- | --- |
| **Miscellaneous cause** | **Meaning** |
| Unspecified | Sent when none of the above cause values applies and the cause is not related to any of the categories Radio Network Layer, Transport Network Layer or Protocol. |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Skip to next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

CauseMisc ::= ENUMERATED {

unspecified,

...

}

CauseProtocol ::= ENUMERATED {

transfer-syntax-error,

abstract-syntax-error-reject,

abstract-syntax-error-ignore-and-notify,

message-not-compatible-with-receiver-state,

semantic-error,

unspecified,

abstract-syntax-error-falsely-constructed-message,

...

}

CauseRadioNetwork ::= ENUMERATED {

unspecified,

requested-item-not-supported,

requested-item-temporarily-not-available,

...,

UE-context-unavailable

}

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*End of change in TS 38.455\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*