

**Agenda Item:** 16.2  
**Source:** Nokia  
**Title:** **Error reporting procedure in RNSAP**  
**Document for:** Approval

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## **1 Introduction**

This paper proposes the introduction of a new procedure to be used to report errors in RNSAP messages and procedures.

## **2 Discussion**

Error handling has not been fully discussed in WG3. Some procedures includes a failure messages for the report of error cases, but a generic 'error reporting' message is needed to cover the cases when failure messages are not applicable.

For example, the error reporting message is used when:

- The message is not understood or cannot be decoded by the receiving RNC. This include the case of an unknown message ID
- Part of the message (some information element) are not understood or cannot be decoded by the receiving entity

The error reporting procedure (described below) is a 'Basic RNSAP procedure'.

### **2.1 Error reporting procedure**

This procedure is used by RNC to report detected errors in one incoming message if they cannot be reported by an appropriate failure message.

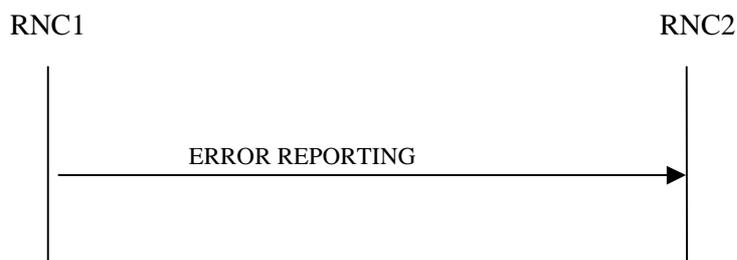
When RNC detects an erroneous message (or a message which for some other reasons cannot be processed), it sends an ERROR REPORTING message to RNC with the most appropriate cause value.

The message contains as a transparent L3 information the erroneous message (coded).

*Possible error causes may be:*

- *Unknown message ID: the message contains a message ID that is not known to the receiver*
- *Unknown Information element: the message contains an information element that is not known or cannot be interpreted by the receiver*
- *Procedural errors: the message is not compatible with the status of the receiver (ex: RL ADDITION REPONSE received when no RL ADDITION REQUEST was previously sent)*

The message is sent using the same SCCP connection of the incoming message, or using the SCCP connectionless service if the incoming message was sent via connectionless SCCP.



## 2.2 Error reporting message

### 2.2.1 ERROR REPORTING

Information Element	Reference	Type
Message Type		M
Transaction ID		M
Cause		M
L3 transparent information		M

## 2.3 L3 information parameter

### 9.1.2.44 L3 Information

This parameter contains the Layer 3 Information from a Uu message as received from the UE over the Uu interface or the Layer 3 Information for a Uu message to be sent to a UE by the CRNC, or the L3 information of one RNSAP message received from another RNC.

## 3 Proposals

- Include section 2.1 of this paper in section 8.1 of [25.423] (basic RNSAP procedure). Text in Italic can be omitted, because the cause values shall be reported in the definition of the 'Cause' parameter.
- Include section 2.2 of this paper in section 9.1 of [25.423].
- Modify section 9.1.2.44 of [25.423] as shown in section 2.3 of this paper.

## 4 References

[25.423] *RNSAP specification v.1.3.1*