

Agenda Item : 15
Source : NTT DoCoMo
Title : Implementation specific O&M information transfer on lur
Document for : Decision

1. Abstract

This contribution proposes a concrete measure to the proposal TDoc 510,511,and 512 from NTT DoCoMo on lur.

2. Requirements

As proposed in TDoc 510. It is required that UTRAN is optionally able to associate an implementation specific failure with a specific UE. On the other hand, TDoc 511 and 512 proposes that nodes within UTRAN are optionally able to exchange implementation specific information one another.

3. Proposal

To satisfy these two requirements, the following alternatives can be considered:

- (1) Transfer implementation specific O&M information with UE dedicated RNSAP messages
- (2) Transfer implementation specific O&M information on a different transport from the one for RNSAP

Alternative (1) insists that UE dedicated messages, mostly failure responses, be transferred with implementation specific O&M information. If implementation specific O&M information is transferred on UE dedicated RNSAP messages, association between a failure and an involved UE is already made.

As the RNC, which is playing role of an SRNC for a specific UE, receives an implementation specific O&M information along with a failure RNSAP message, the SRNC then transfers the O&M information to the Failure Database with UE identity. SRNC does not always have to interpret the contents of the implementation specific O&M information.

To bring alternative (1) into practice, it is proposed to add a field for implementation specific O&M information to all RNSAP failure messages. Modification to "RNSAP: Radio Link Setup Failure" message is shown as an example below.

9.1.4. Radio Link Setup Failure

Information element	Reference	Type
Message type		M
Transaction ID		FFS
RL not setup		M
RL ID		M
RL Failure Cause		M
<u>Implementation specific O&M information</u>		<u>O</u>
RL information response (RL successfully setup)		O
RL-ID		M
Diversity Indication		C1
Reference RL-ID		C2
DL Scrambling code		M
DL Channelisation Codes		M

DL Channelisation code		M
DCH successfully setup		C3
DCH ID		M
Binding ID		M
Transport Address		O
Neighbouring cell information		O
Cell ID		O
CRNC Address		O
UARFCN		M
Primary CCPCH scrambling code		M
Frame Offset		O

Should the alternative (1) not be accepted, DoCoMo would like to insist on alternative (2) that implementation specific O&M information be transferred on the different transport.

In order to associate an RNSAP failure message with an implementation specific O&M information that are sent on different transport in parallel, it is proposed that Transaction ID be added to each RNSAP failure messages. By attaching a unique Transaction ID to both an RNSAP message and an implementation specific O&M message, the SRNC are able to associate the failure with the implementation specific O&M message.

To bring alternative (2) into practice, it is proposed to add a "Transaction ID" field to all RNSAP failure messages. Modification to "RNSAP: Radio Link Setup Failure" message is shown as an example below.

9.1.4. RADIO LINK SETUP FAILURE

Information element	Reference	Type
Message type		M
Transaction ID		FFSM
RL not setup		M
RL ID		M
RL Failure Cause		M
RL information response (RL successfully setup)		O
RL-ID		M
Diversity Indication		C1
Reference RL-ID		C2
DL Scrambling code		M
DL Channelisation Codes		M
DL Channelisation code		M
DCH successfully setup		C3
DCH ID		M
Binding ID		M
Transport Address		O
Neighbouring cell information		O
Cell ID		O
CRNC Address		O
UARFCN		M
Primary CCPCH scrambling code		M
Frame Offset		O

4. Conclusion

It is proposed that either of the above-mentioned alternatives be adopted.