

Agenda Item : 16
Source : NTT DoCoMo
Title : Implementation specific O&M information transfer on lub
Document for : Decision

1. Abstract

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

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 NBAP messages
- (2) Transfer implementation specific O&M information on a different transport from the one for NBAP
- (3)

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 NBAP 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 NBAP message, the SRNC then transfers the O&M information to the Failure Database with UE identity.

If the RNC is playing role of a DRNC for a specific UE, the DRNC then transfers the implementation specific O&M information to the SRNC without interpreting the information.

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

9.1.4 Radio Link Setup Failure

This message is sent from Node B to CRNC as response to the Radio Link Setup message when at least one RL has not been successfully setup.

Information Element	Reference	Type	FDD/TDD
Message Discriminator		M	
Message Type		M	
CRNC Communication Context ID		M	
Node B Communication Context ID		M	
Communication Control Port ID		O	
Successful RL Information Response		O	
RL ID		M	
Diversity Indication		C ¹	
Reference RL ID		C ²	
DCH Information Response		C³	
DCH ID		M	

Binding ID		M	
Transport Layer Address		FFS	
Unsuccessful RL Information Response		M	
RL ID		M	
RL Failure Cause		M	
<u>Implementation specific O&M information</u>		<u>O</u>	

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 NBAP 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 NBAP failure messages. By attaching a unique Transaction ID to both an NBAP message and an implementation specific O&M message, the DRNC/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 NBAP failure messages. Modification to "NBAP: Radio Link Setup Failure" message is shown as an example below.

9.1.4 Radio Link Setup Failure

This message is sent from Node B to CRNC as response to the Radio Link Setup message when at least one RL has not been successfully setup.

Information Element	Reference	Type	FDD/TDD
Message Discriminator		M	
Message Type		M	
<u>Transaction ID</u>		<u>M</u>	
CRNC Communication Context ID		M	
Node B Communication Context ID		M	
Communication Control Port ID		O	
Successful RL Information Response		O	
RL ID		M	
Diversity Indication		C ⁴	
Reference RL ID		C ⁵	
DCH Information Response		C⁶	
DCH ID		M	
Binding ID		M	
Transport Layer Address		FFS	
Unsuccessful RL Information Response		M	
RL ID		M	
RL Failure Cause		M	

4. Conclusion

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