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Title	**UL HARQ for centralized scheduling using data tunneling**	
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Re:	This is in response for call for comments P802.16j/D1	
Abstract	This contribution proposes a procedure for handling UL HARQ in a relay system that operates under centralized scheduling with tunneling.	
Purpose	Review and adopt	
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UL HARQ for centralized scheduling using data tunneling

Introduction

The current specifications of the baseline document for RSs does not provide solutions for UL HARQ reporting under the centralized scheduling with data being tunneled from the MR-BS to MSs via RSs.

Specific text changes

[Insert new sub clause 6.3.17.5.3]

6.3.17.5.3 UL HARQ for tunnels

An UL tunnel has its beginning at the access RS for the corresponding MSs that are part of the tunnel, while the end of the tunnel is at the MR-BS. The MR-BS provides signaling to access RS for packing multiple MPDUs from different MSs (CIDs) into the tunnel. The access RS shall pack into the tunnel only those MPDUs that have been successfully received from the corresponding MSs. The UL transmission across the hops follows the instructions provided in the section 6.3.17.5.1. Upon receiving correctly the tunneled MPDU, the MR-BS determines those MPDUs that have been included and those MPDUs that failed on the access link. Subsequently, MR-BS may schedule the retransmission of those MPDUs that have failed on access link.

Optionally, MR-BS may configure additional HARQ ACK/NAK channels from access RS all the way back to MR-BS to report the receiving status of MS's MPDU via Aggregated-HARQ ACK region allocation IE. This option allows the MR-BS to reduce the latency in scheduling the retransmission of corresponding HARQ data sub-burst on the access link, by providing the MR-BS with faster reports of failed access links in the case that the tunnel fails on any intermediate RS. The convention used for aggregation procedure in this situation is the same as that described in section 6.3.17.4.4; in the aggregated report, access RS sets for an MS the corresponding bit on zero if the MPDU has been received successful and on one if the MPDU was received in error.

[Insert in the Table DDD (contribution C80216j-07/403) on section 6.3.17.4.4 before the Padding the following lines:]

N_CID_UL	8 bits	Number of UL T-CIDs that are served by this region.
For (i = 0; i < N_CID_UL; i++) {		
RCID_IE()	Variable	Tunnel CID
N_ACK_channels	8 bits	No. of aggregated HARQ ACK channels that are allocated to RS to transmit the reception status report of MS's MPDUs.
}	-	-