

Project	IEEE 802.16 Broadband Wireless Access Working Group < http://ieee802.org/16 >	
Title	Addition of SAID_update in harmony with CID_update	
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Re:	Recirculation Ballot #14b Announcement	
Abstract	To be in line with CID_update in REG-RSP in current IEEE 802.16e/D3, SAID_update is defined and appended to the RNG-RSP.	
Purpose	Discuss and Adopt	
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Addition of SAID_update

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1. Problem Statements

IEEE 802.16e/D3 defined CID_update attribute which is used as shorthand method for replacing the active connections used by the MSS in its previous Serving BS. But with same analogy, it's possible that SA be reused therefore SAID should be updated according to the Target BS security policy configuration.

2. Overview of Proposed Solutions

Per the handoff ad-hoc's consensus, when bit 1 of Handoff Process Optimization is set to 1, which means PKM procedure maybe skipped, it's probable that SAID be updated according to the target BS security configuration. In this case, SAID_update attribute shall be appended to RNG-RSP as CID_update is appended to REG-RSP. But if the crypto-graphic suite negotiated between MSS and serving BS is not supported by target BS, PKM procedure shall not be skipped without doubt.

3. Proposed Changes to IEEE 802.16e/

6.3.2.3.6 Ranging Response(RNG-RSP) message

Service Level Prediction — This value indicates the level of service the MSS can expect from this BS. The following encodings apply:

- 0 = No service possible for this MSS.
- 1 = Some service is available for one or several Service Flow authorized for the MSS.
- 2 = For each authorized Service Flow, a MAC connection can be established with QoS specified by the AuthorizedQoSParamSet.
- 3 = No service level prediction available.

Service Level prediction may be accompanied by a number of Service Flow Encodings as specified in 11.13 sufficient to uniquely identify the AuthorizedQoSParamSet associated with the predicting Service Level Prediction (SLP). If Service Flow Encodings are included, then the SLP response is specific to the presented AuthorizedQoSParamSet defined by the associated encodings. Included Service Flow Encodings are restricted to the following parameters only:

- Global Service Class Name
- Service Flow QoS parameter set encodings as defined in 11.13 such that the combination of Global Service Class Name and any Service Flow modifying parameters fully defines an AuthorizedQoSParamSet profile being assessed
- Service Flow Identifier

If individual AuthorizedQoSParamSet profiles are provided for multiple Service Level Predictions, then each Service Level Prediction is specific to its associated AuthorizedQoSParamSet profile and shall include only response options '0' or '2'.

[SAID_update](#) - The SAID_update is a compound TLV value that provides a shorthand method for renewing

active SAs used by the MSS in its previous Serving BS. The TLVs specify SAID in the Target BS that shall replace active SAID used in the previous Serving BS. Multiple iterations of these TLVs may occur in the RNG-RSP suitable to re-creating and re-assigning all active Security Associations for the MSS from its previous Serving BS including Primary, Dynamic and Static SAIDs. If any of the Security Associations parameters change, then those Security Associations parameters encoding TLVs that have changed will be added.

11.6 RNG-REQ/RSP TLVs for re-establishment of Service Flows

[Add the following before section 11.7]

11.6.1 SAID update encodings

This field provides a translation table that allows an MSS to update its security associations so that it may continue security service after a hand-over to a new serving BS.

<u>Name</u>	<u>Type</u> (1 byte)	<u>Length</u> (1 byte)	<u>Value</u> (Variable length)
<u>SAID_update</u>	<u>20</u>	<u>variable</u>	<u>Compound</u>

The following TLV values shall appear in each SAID_update TLV.

<u>Name</u>	<u>Type</u> (1 byte)	<u>Length</u> (1 byte)	<u>Value</u> (Variable length)
<u>New_SAID</u>	<u>20.1</u>	<u>2</u>	<u>New SAID after hand-over to new BS</u>
<u>Old_SAID</u>	<u>20.2</u>	<u>2</u>	<u>Old SAID before hand-over from Old BS</u>