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<tr>
<th>Project</th>
<th>IEEE 802.16 Broadband Wireless Access Working Group</th>
<th><a href="http://ieee802.org/16">http://ieee802.org/16</a></th>
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<tr>
<td>Title</td>
<td>Security ad-hoc – Minutes of the 2nd conference call</td>
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<td>Date Submitted</td>
<td>2007-05-04</td>
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Re:

Abstract

Minutes of the first conference call of the Relay TG’s Other MAC/PHY ad hoc, held on 4 April 2007.

Purpose

Information

Notice

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Security Ad-hoc: Minutes of the 2nd conference call

Sheng Sun

Chair: Sheng Sun
Date: Apr 19th, 2007

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(Please be advised that I may have missed out some of comments in the minutes, please feel free to add and correct me)

Review of new contributions

1: #C802.16j-07/274 Security proposal for multi-hop relay system
Presenter: Sergey Seleznev Sumsang
Comments: - This proposal shares the design purposes and some characteristics with #134 (Yousuf)
- This proposal has the scope with the relay network, how would it relate to the MS access authentication? (Hang)
Actions for Authors: Discuss with Nortel about the potential harmonization

2: #C80216j-08_283 Secure extended MAC header II
Presenter: Yousuf Saifullah (Nokia)
Comments: - The counter value added in the header will increase the header size, also it needs synchronization, otherwise, no consistence (Masato, Can)
- The A-HCS header is too short to protect the header, needs at 16/32bits (Sergey)
- The new MAC header type also needs thorough investigation from Ad-hoc group (Sheng)
- The new HCS bits algorithm needs more investigation (Hang)
Actions for Authors: - Also submit this proposal to PHY/MAC ad-hoc group
- Also investigate the strength of longer HCS protection

Update of existing contributions

1: #C802.16j-08_201 Centralized authentication for multi-hop relay system
Presenter: Haihong Zheng (Nokia)
Updates: - RS being transparent to authentication process could lead to expose the MR-BS to the attack (Can)
- The MS-CID is also carried over the transparent RS which disallows the aggregation (Hang)

2 #C80216j-08_188 Shared Management Message in MR system: Format, Transfer and Security for next conference
Presenter: Yanling Lu (Hisilicon)
Comments: - The concern with the two-tier overhead with the addition of the HMAC/CMAC tuple (Haihong)
Actions for authors: Put the application bounds on this proposal

3 #C80216j-08_149 TEK Transfer in Relay Systems (Withdrawed and merged with #098)
Presenter: Masato Okuda(Fujitsu)
4 #C80216j-08_098 Distributed authentication for .16j relay system
Presenter: Sheng Sun (Nortel)
Comments: - The comprise of single RS which is vulnerable to attacks, could break the whole security system within the Relay network (Haihong/Sergey/Kan)
- The transfer AK down to RS is not safe as RS (Haihong/Sergey)

5: #C80216j-08_134 Security Zone Key generation and management for multi-hop relay system
Presenter: Sheng Sun
Comments: - Short of time to discuss in depth, will discuss over the emails

Stroll poll on the authentication scheme(s) that should be adopted in the 16j security
- 2/9 supports Centralized Authentication only
- 1/9 supports Distributed authentication only
- 5/9 supports Both authentication should appear in the security
- 1/9 supports Centralized Authentication but willing to look at other distributed authentication scheme

Chairman's recommendations: Suggest to adopt both authentication schemes which in essence still need improvements, in 16j baseline document so as to reflect majority opinions since both schemes have strength and limitations in different application scenarios