batman-adv - Bug #236

Bug # 235 (Closed): meta: Missing list checks for *list_add*

batadv_gw_node_update: Missing list checks for *list_add*

03/05/2016 09:25 AM - Sven Eckelmann

Status:	Closed	**Start date:**	06/26/2015
Priority:	Normal	**Due date:**	
Assignee:	batman-adv developers	**% Done:**	0%
Category:		**Estimated time:**	0.00 hour
Target version:	2018.3		

Description

Simon debugged the refcnt problem and submitted some patches to fix them. I had a brief look and noticed that there are possible more problems similar to the *list_del* ones - just with *list_add*. Basically some functions use some kind of get function, notice that the element does not exist and then create a new one to add to the list. Only the "list_add" is protected. The result may be that an element in twice in a list when only a single occurrence is allowed.

The problem I saw is that functions adding objects in an RCU protected list are missing an definitive check. They first call some kind of *_get (rcu_read_lock only) to check if an object with this value already exists and then uses some kind of *_add to allocate a new object and add it (which may already be added in by a different context). So it has to be made sure that nothing modifies the list between the check and the add of the new object).

An RFC was submitted to demonstrate how it could be fixed
https://patchwork.open-mesh.org/project/b.a.t.m.a.n./patch/1898798.WP4bC1arXA@bentobox/

History

#1 - 02/11/2017 05:57 PM - Sven Eckelmann

- Assignee changed from Marek Lindner to batman-adv developers

#2 - 08/12/2018 09:06 PM - Sven Eckelmann

- Status changed from New to In Progress

See https://patchwork.open-mesh.org/project/b.a.t.m.a.n./patch/20180812190445.28013-2-sven@narfation.org/

#3 - 09/08/2018 08:39 AM - Sven Eckelmann

- Target version set to 2018.3

- Status changed from In Progress to Resolved

Queued up for 2018.3

#4 - 09/14/2018 05:44 PM - Sven Eckelmann

- Status changed from Resolved to Closed

#5 - 05/27/2020 11:07 PM - Sven Eckelmann

- Description updated