

## batman-adv - Feature #300

### Convert sysfs config attributes to genl

10/29/2016 01:27 PM - Sven Eckelmann

<b>Status:</b>	Closed	<b>Start date:</b>	10/29/2016
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>	batman-adv developers	<b>% Done:</b>	100%
<b>Category:</b>		<b>Estimated time:</b>	80.00 hours
<b>Target version:</b>	2019.1		
<b>Description</b>			
Jiri Pirko is thinking that sysfs use to config attributes of object/batman-adv is "is a huge mistake to use sysfs for things like this." <a href="https://patchwork.open-mesh.org/patch/16763/">https://patchwork.open-mesh.org/patch/16763/</a>			
Instead he "suggest to rework the api to use genl entirely."			

### History

#### #1 - 12/04/2016 11:14 AM - Sven Eckelmann

- Estimated time set to 40.00 h

#### #2 - 02/11/2017 05:56 PM - Sven Eckelmann

- Assignee set to batman-adv developers

#### #3 - 11/05/2018 07:14 AM - Sven Eckelmann

- Status changed from New to In Progress

Some RFC patches for batctl and batman-adv are available:

- <https://patchwork.open-mesh.org/project/b.a.t.m.a.n./list/?series=175>
- <https://patchwork.open-mesh.org/project/b.a.t.m.a.n./list/?series=174>

#### #4 - 11/05/2018 03:21 PM - Sven Eckelmann

- Estimated time changed from 40.00 h to 80.00 h

Jiri informed us that this approach is now frowned upon. Instead following implementation is preferred:

On Montag, 5. November 2018 11:54:12 CET Jiri Pirko wrote:

[...]

But let assume for now that you don't want to use this approach, we can also have for example something like:

BATADV\_CMD\_SET\_BRIDGE\_LOOP\_AVOIDANCE which then receives either one or no flag  
BATADV\_ATTR\_BRIDGE\_LOOP\_AVOIDANCE to enable/disable bridge loop avoidance. And  
a command BATADV\_CMD\_GET\_BRIDGE\_LOOP\_AVOIDANCE which tells the client using  
BATADV\_ATTR\_BRIDGE\_LOOP\_AVOIDANCE whether it was enabled or not. A dump  
functionality for all options for this batadv object/class would then not  
exist.

Got it. That is possible to do it this way. But if you would be able to group the attrs somehow, that would be probably nice. 1:1 mapping between cmds and attrs looks a bit weird.

Sidenote: I suggest not to use NLA\_FLAG attribute type. Better to use

NLA\_U8 of value 0/1. NLA\_FLAG missing in message might mean 2 things:

- 1) user wants to set false
- 2) user is old and does not support this attribute

Ok, let me suggest something more specific (just to make sure we talk about the same thing). We could use the commands:

```
> + /**
> + * @BATADV_CMD_GET_OPTION: Get option(s) from softif
> + */
> + BATADV_CMD_GET_OPTION,
> +
> + /**
> + * @BATADV_CMD_SET_OPTION: Set option for softif
> + */
> + BATADV_CMD_SET_OPTION,
> +
> + /**
> + * @BATADV_CMD_GET_OPTION_HARDIF: Get option(s) from a hardif of the
> + * current softif
> + */
> + BATADV_CMD_GET_OPTION_HARDIF,
> +
> + /**
> + * @BATADV_CMD_SET_OPTION_HARDIF: Set option for hardif of the
> + * current softif
> + */
> + BATADV_CMD_SET_OPTION_HARDIF,
> +
> + /**
> + * @BATADV_CMD_GET_OPTION_VLAN: Get option(s) from a VLAN of the
> + * current softif
> + */
> + BATADV_CMD_GET_OPTION_VLAN,
> +
> + /**
> + * @BATADV_CMD_SET_OPTION_VLAN: Set option for VLAN of the
> + * current softif
> + */
> + BATADV_CMD_SET_OPTION_VLAN,
> +
>
```

But instead of using `BATADV_ATTR_OPTION_NAME+BATADV_ATTR_OPTION_TYPE+BATADV_ATTR_OPTION_VALUE` to send the infos up, we have a number of specific netlink attributes [e.g. `BATADV_ATTR_BRIDGE_LOOP_AVOIDANCE (u8)`] that are used to exchange the value directly. Multiple attributes can be in the messages and dumping is possible but maybe requires to split all option in multiple messages. Informational dumping (user readable) is then only possible when the userspace part also knows all attributes. And sending things to the kernel is only possible when the userspace also has explicit support for the attribute.

This is at least similar to how I did it in two previous projects but dropped this approach when I saw that it was implemented differently for devlink and team.

We can maybe modify the current way how options are registered to write/read directly to `msg/attributes`. But the main logic has to be modified anyway. And we cannot support something like the `config` command.

(A lot) more time has therefore to be spend on this topic before it is ready.

It should be checked whether `NL80211_CMD_SET_WIPHY` is a good reference.

And also `NLA_FLAG` should be dropped. Instead:

Sidenote: I suggest not to use `NLA_FLAG` attribute type. Better to use `NLA_U8` of value 0/1. `NLA_FLAG` missing in message might mean 2 things:

- 1) user wants to set false

2) user is old and does not support this attribute

#### #5 - 11/23/2018 05:22 PM - Sven Eckelmann

There is now a new patch series for batman-adv <https://patchwork.open-mesh.org/project/b.a.t.m.a.n./list/?series=181>

The batctl implementation can currently only receive the netlink messages of the "config" mcast group. But at least the **GET** replies will look the same: <https://patchwork.open-mesh.org/patch/17659/>

#### #6 - 12/07/2018 09:35 PM - Sven Eckelmann

There are now two new RFC series:

- batman-adv: <https://patchwork.open-mesh.org/project/b.a.t.m.a.n./list/?series=188>
  - cover letter: <https://patchwork.open-mesh.org/cover/17669/>
- batctl: <https://patchwork.open-mesh.org/project/b.a.t.m.a.n./list/?series=189>
  - cover letter: <https://patchwork.open-mesh.org/cover/17689/>

#### #7 - 01/19/2019 04:58 PM - Sven Eckelmann

The RFC patch series for batman-adv was updated:

- batman-adv: <https://patchwork.open-mesh.org/project/b.a.t.m.a.n./list/?series=202>
  - cover letter: <https://patchwork.open-mesh.org/cover/17730/>

The batctl patch series from [#300#note-6](#) can still be used because the ABI didn't change.

#### #8 - 02/09/2019 02:46 PM - Sven Eckelmann

- Target version set to 2019.1
- % Done changed from 0 to 100
- Status changed from In Progress to Resolved

The two patch series were now posted:

- batman-adv: <https://patchwork.open-mesh.org/project/b.a.t.m.a.n./list/?series=210>
  - cover letter: <https://patchwork.open-mesh.org/cover/17762/>
- batctl: <https://patchwork.open-mesh.org/project/b.a.t.m.a.n./list/?series=211>
  - cover letter: <https://patchwork.open-mesh.org/cover/17782/>

#### #9 - 02/14/2019 11:18 AM - Sven Eckelmann

- Status changed from Resolved to Closed

Added to net-next and batman-adv master branch.