batman-adv - Bug #153

batctl gw server throughput low

09/01/2011 12:41 PM - TY Wu

Status:	Closed		**Start date:**	09/01/2011
Priority:	Normal		**Due date:**	
Assignee:			**% Done:**	0%
Category:			**Estimated time:**	0.00 hour
Target version:	2011.3.1			

Description
Hi, I am using batman-advanced with openwrt. In version 2011.2, throughput from server to client or client to server is OK. But in version 2011.3, throughput from server to client and client to server becomes very low. Just wondering, is there any traffic control limiting the throughput? When I change the server to client/off using "batctl gw off" or "batctl gw client", the throughput is OK.

History

#1 - 09/01/2011 10:16 PM - Anonymous

- Project changed from batctl to batman-adv

#2 - 09/01/2011 10:35 PM - Anonymous

- File 0001-Revert-batman-adv-improved-gateway-tq-based-selectio.patch added

There is no traffic control. The gateway setting should only change the path selection of dhcp request packets. So it is not directly connected with the traffic that is actually send between the gateway and the client.

Can you please give more information about the topology, hardware and the methods/tools you used for the measurements.

The only changes regarding the gateway selection in 2011.3.0 is the uevent patch [1], the filter of incoming dhcp request [2] and gw refactoring [3] from ordex. It is possible that the second one is highly inefficient and uses too much cpu on you (low end?) nodes. Can you please try to revert this patch and test again?

[1] https://git.open-mesh.org/?p=batman-adv.git;a=commit;h=c7922649c3d888c52eefa7c034abe60fd6c33b4f
[2] https://git.open-mesh.org/?p=batman-adv.git;a=commit;h=17852faeb269bc72f6ff542e21c0b3056fb99c48
[3] https://git.open-mesh.org/?p=batman-adv.git;a=commit;h=6a17ecc4603be7f065c38b288d038a0082bbf21d

#3 - 09/02/2011 12:51 PM - TY Wu

I am using a AR7240-based (400MHz) boards. What I have done is to connect 2 of these boards together on the Ethernet port. When I ping from one board to the other, when I set to off/client, the ping has very low latency. When I change to server, the latency increased by a lot. I used the ath9k on this boards using wireless drivers, and the results all point towards that the server is having some issues.

I tried the patch, and it works now. Does it mean that one of the 3 changes is causing the problems? Do you think the one that you mentioned is highly inefficient is causing the problems?

#4 - 09/02/2011 08:05 PM - Anonymous

Could you please give infos what "low" or "a lot" means (please provide comparison values). And the patch only reverts the gateway filter change [1].

It depends on your data how we proceed.

But thanks a lot for your testing and the report.

[1] https://git.open-mesh.org/?p=batman-adv.git;a=commit;h=17852faeb269bc72f6ff542e21c0b3056fb99c48

#5 - 09/05/2011 05:41 AM - TY Wu

Hi, no problem for the testing. :)

As for the comparison values, I set up my 2 AR7240 devices and have them ping to each other on the LAN ports. I make sure that batman advanced is running on the LAN ports by using batctl commands.

AR7240_1(client) ping to AR7240_1 (gw=off) , the latency is 0.3ms.

Then I change the gw to server:

AR7240_1(client) ping to AR7240_1 (gw=off) , the latency is between 0.6ms to 10ms, keeps fluctuating.

If I used your patch, the latency is 0.3ms for both tests. Do let me know if you require more information.

#6 - 09/05/2011 05:55 AM - TY Wu

Sorry, edit some things, as I wrote something wrongly.

TY Wu wrote:

> Hi, no problem for the testing. :)
>
> As for the comparison values, I set up my 2 AR7240 devices and have them ping to each other on the LAN ports. I make sure that batman advanced is running on the LAN ports by using batctl commands.
>
> AR7240_1(client) ping to AR7240_1 (gw=off) , the latency is 0.3ms.
>
> Then I change the gw to server:
>
> AR7240_1(client) ping to AR7240_1 (**gw=server**) , the latency is between 0.6ms to 10ms, keeps fluctuating.
>
> If I used your patch, the latency is 0.3ms for both tests. Do let me know if you require more information.

#7 - 09/05/2011 08:56 AM - Marek Lindner

After running some tests I can confirm the issue. The latency goes up by a factor of 4-5.

#8 - 09/08/2011 02:48 PM - Marek Lindner

- File 0001-batman-adv-gw-performance.patch added

I developed a patch which keeps the current functionality and reduces the delay. Could you please test it at your end ? You have to remove all other patches to ensure this one applies cleanly.

#9 - 09/12/2011 05:08 AM - TY Wu

Hi, it is working now on my side. Thanks a lot!

#10 - 09/12/2011 11:49 AM - Marek Lindner

Just to be sure: You removed all of Sven's patches and applied mine instead ? Then it worked fine ?

Thanks for testing!

#11 - 09/13/2011 02:59 AM - TY Wu

Yes, I removed all of Swen's patches and applied yours. It is working fine on my side. =)

#12 - 09/20/2011 03:05 AM - Antonio Quartulli

- File 0001-batman-adv-do_bcast-has-to-be-true-for-broadcast-pac.patch added

I would like to propose another test. Could you please apply the attached patch on top of the clean master branch? (no marek's or sven's patch on it) and then perform again the same tests, please :-)

#13 - 09/20/2011 10:14 AM - Antonio Quartulli

- File deleted (0001-batman-adv-do_bcast-has-to-be-true-for-broadcast-pac.patch)

#14 - 09/20/2011 10:17 AM - Antonio Quartulli

- File 0001-batman-adv-do_bcast-has-to-be-true-for-broadcast-pac.patch added

#15 - 09/29/2011 12:05 PM - Marek Lindner

- Status changed from New to Resolved

We can close the ticket as the patch has been included into the various repositories.

Thanks for reporting!

#16 - 11/01/2011 11:39 AM - Simon Wunderlich

- Status changed from Resolved to Closed

#17 - 02/11/2017 09:28 AM - Sven Eckelmann

- Target version set to 2011.3.1

Files

0001-Revert-batman-adv-improved-gateway-tq-based-selectio.patch	6.23 KB	09/01/2011	Anonymous

0001-batman-adv-gw-performance.patch	13.9 KB	09/08/2011	Marek Lindner
0001-batman-adv-do_bcast-has-to-be-true-for-broadcast-pac.patch	1.47 KB	09/20/2011	Antonio Quartulli