

batman-adv - Feature #159

gw_mode and router advertisement daemon for IPv6

05/24/2012 11:27 AM - Luca Postregna

Status:	Rejected	Start date:	05/24/2012
Priority:	Normal	Due date:	
Assignee:	Luca Postregna	% Done:	0%
Category:		Estimated time:	0.00 hour
Target version:			
Description			
gw_mode server/client works properly with ipv4, expecially if there are dhcp/dns server deamon on gw_server nodes.			
My goal is obtain the same behaviour with ipv6 via router advertisement and rdns. In particular, it would be nice if the clients accepted ipv6 default route and ipv6 nameservers only from the best gw_server.			
What do you think about?			
Related issues:			
Duplicated by batman-adv - Feature #175: The IPv6 issue, any solutions?		Rejected	08/13/2013

History

#1 - 05/24/2012 04:52 PM - Anonymous

Sounds interesting. You will have to add filters to different positions in the rx/tx path and parsing functions. You will not have the unicast optimisation... but I think that is not a big problem right now.

#2 - 05/24/2012 09:55 PM - Antonio Quartulli

I agree with Sven. It doesn't sound too complex.

You would need to add a parsing function in the rx path of the announcement: if it comes from the best GW then you should instruct batman to accept it, otherwise the packet should be rebroadcasted only without being delivered to the interface.

#3 - 05/25/2012 11:03 AM - Marek Lindner

Well, there is one other thing you should consider: How do you propagate a gateway change to your clients ?

When batman switches the gateway it would be nice to have a way to inform your client that the gateway changed. Otherwise they are using an outdated default route to some gateway that may not exist any longer. You will want to keep this time window as short as possible.

#4 - 05/25/2012 11:28 AM - Luca Postregna

radvd have MaxRtrAdvInterval option, it is similar to dhcp timelease.

There is also another interesting option in radvd:

HomeAgentLifetime seconds

The length of time in seconds (relative to the time the packet is sent) that the router is offering Mobile IPv6 Home Agent services. A value 0 must not be used.

<http://linux.die.net/man/5/radvd.conf>

But, for now, i dont have experience with this option.

When accept_ra_rtr_pref is enabled, what each node needs to do is suggest best gw_server ipv6. For the best dns nameserver, i think that this can be managed by a good resolvconf configuration

#5 - 07/01/2012 12:05 PM - Antonio Quartulli

- *Tracker changed from Bug to Feature*

#6 - 11/03/2012 12:14 AM - Gioacchino Mazzurco

I think the ipv6 gw_mode and the ipv4 one should be separated features and configurable a part, because it can be that some nodes are ipv6 gateways but not ipv4 gateways, and vice versa, and also in the case of a node with both ipv4 and ipv6 gateway announced bandwidth can differ

#7 - 04/06/2014 04:22 PM - Jan n/a

Hi,

is there any progress on this issue?

Some thoughts

- Routing in IPv6 / RA messages are more complex than IPv4 DHCP. A host may have multiple default routes and use 'em on a round robin basis.
- What is a IPv6-gateway mode supposed to do?
 - Block foreign RA-Message?
 - Manage foreign RA-Messages (Lower route priority, etc.)

IMHO:

- Blocking foreign RAs on gateways is the easiest option - but it is sufficient. (Am I missing sth.)?
- However, it would be nice, if a client (= gw_mode=client) is able to select more than one gateway for redundancy. The number of gateways to select ought to be configurable.

#8 - 03/30/2015 01:54 PM - Jan n/a

Is there any progress on this?

I'd happy so see an IPv6-Gateway-mode soon.

#9 - 03/30/2015 05:07 PM - Marek Lindner

Jan n/a wrote:

Is there any progress on this?

I'd happy so see an IPv6-Gateway-mode soon.

We also would like to see this feature soon but as far as I know, nobody is working on it. Feel free to pick it up and propose patches.

#10 - 04/12/2016 01:34 AM - Eric Sanders

IPv6 RA can pass through the mesh, for SSIDs that are bridged once the ip6tables FORWARD chain is modified. The default configuration is set to, more or less, forward almost nothing (this includes forwarding through the bridged interfaces) related to IPv6. I've modified my FORWARD chain and included a script file which runs every hour to make sure rules stay active.

Once configured properly, I can remote into any open mesh ssh server via its link local address and RAs propagate through out the mesh and any client will get a RA configured address.

#11 - 04/12/2016 08:10 AM - Sven Eckelmann

@Eric, I am relative sure that you are writing in the wrong issue tracker. This here is the issue tracker of the open source project batman-adv from the open source developer community open-mesh*.org*. It is not about the commercial AP vendor from open-mesh.com/cloudtrax.com. Please contact their support when you have problems with their product.

#12 - 12/04/2016 11:03 AM - Sven Eckelmann

- Assignee set to Luca Postregna

You can check out <https://github.com/freifunk-gluon/gluon/pull/838>

#13 - 02/11/2017 07:23 PM - Sven Eckelmann

- Duplicated by Feature #175: The IPv6 issue, any solutions? added

#14 - 02/27/2018 01:36 PM - Sven Eckelmann

- Status changed from New to Rejected

A solution can be found under <https://github.com/freifunk-gluon/gluon/tree/master/package/gluon-radv-filterd> but is not maintained under the open-mesh.org umbrella.