pfSense - Feature #11103

radvd: use virtual link local IP as source address in HA setups

11/25/2020 12:52 PM - Lorenz Schori

Status:	Pull Request Review	**Start date:**	11/25/2020
Priority:	Normal	**Due date:**	
Assignee:	Renato Botelho	**% Done:**	0%
Category:	IPv6 Router Advertisements (RADVD)	**Estimated time:**	0.00 hour
Target version:	2.6.0		
Plus Target Version:		**Release Notes:**	Default

Description

If radvd is configured with *RA interface* set to a virtual link local IP, then add it to AdvRASrcAddress in radvd.conf. This ensures that the virtual IP is advertised as the gateway address to clients.

More background:

- https://fy.blackhats.net.au/blog/html/2018/11/01/high_available_radvd_on_linux.html
- https://github.com/reubenhwk/radvd/issues/45

Associated revisions

Revision 8d4adafb - 11/26/2020 02:02 AM - znerol

Add AdvRASrcAddress to radvd.conf if linklocal vip is selected, refs: #11103

Revision ad27159f - 02/23/2021 03:12 PM - znerol

Do not deprecate prefix if AdvRASrcAddress is specified, refs: #11103

History

#1 - 11/26/2020 02:25 AM - Lorenz Schori

Filed PR: https://github.com/pfsense/pfsense/pull/4487

Instructions for testing this feature:

- Setup HA cluster with primary and fallback
- Setup a IPv6 link-local VIP on the LAN interface, e.g.: fe80::1:1
- Configure the link-local VIP as the RA Interface on primary and fallback hosts

Observe that:

- radvd.conf is present with a configuration section for the LAN interface on both machines (primary and fallback)
- radvd.conf includes an AdvRASrcAddress section
- RA packets are sent by the primary host with the VIP as source address, no RA packets are sent by the fallback host.
- RA packets are sent by the fallback host with the VIP as source address as soon as the VIP switches over to the fallback host. No RA packets are sent by the primary host.
- Default route on client machines stays the same regardless whether the VIP is currently on primary or fallback host.

#2 - 11/30/2020 08:23 AM - Jim Pingle

- Status changed from New to Pull Request Review

- Target version set to CE-Next

#3 - 02/22/2021 05:07 AM - Renato Botelho

- Status changed from Pull Request Review to Feedback

- Assignee set to Renato Botelho

PR has been merged. Thanks!

#4 - 02/23/2021 03:16 PM - Lorenz Schori

Thanks for merging. I just opened a PR for a small followup:

https://github.com/pfsense/pfsense/pull/4502

Sorry that I did not notice that earlier.

#5 - 03/16/2021 01:48 PM - Renato Botelho

MErged. Thanks!

#6 - 04/21/2021 05:03 AM - Lorenz Schori

Found another thing I've missed before:
https://github.com/pfsense/pfsense/pull/4515

#7 - 04/21/2021 07:49 AM - Jim Pingle

- Status changed from Feedback to Pull Request Review

- Target version changed from CE-Next to 2.6.0