

pfSense - Todo #5553

Suggestion: higher default MBUF values

11/30/2015 06:41 AM - Eduard Rozenberg

Status:	Resolved	Start date:	11/30/2015
Priority:	Normal	Due date:	
Assignee:		% Done:	0%
Category:	Operating System	Estimated time:	0.00 hour
Target version:			
Description			
At our main location we recently hit 100% MBUF usage of the default 26584, on our firewall master. The backup firewall was at 60%. I increased the value to 1,000,000 based on advice from the tuning page for 64bit multi-GB systems: https://doc.pfsense.org/index.php/Tuning_and_Troubleshooting_Network_Cards#mbuf_2F_nmbclusters Suggestions: <ul style="list-style-type: none">• Even for 32 bit systems seems to make sense to have a higher default value shipped out-of-the-box• If installer detects a 64-bit system with decent RAM, installer should set a higher value for this tunable			

History

#1 - 11/30/2015 06:49 AM - Eduard Rozenberg

Suggestion is **especially** important for Intel igb/em cards (as we have on our firewalls) based on the advice further down that same tuning link.

Recently we had some interfaces go down for no obvious reason and restarted by apinger on the firewall that was at 100% MBUF's used. Maybe exhaustion of MBUF's was involved, who knows.

"Intel igb(4) and em(4) Cards

Certain intel igb cards, especially multi-port cards, can very easily exhaust mbufs and cause kernel panics, especially on amd64. The following tweak will prevent this from being an issue:

In /boot/loader.conf.local - Add the following (or create the file if it does not exist):

```
kern.ipc.nmbclusters="1000000"
```

That will increase the amount of network memory buffers, allowing the driver enough headroom for its optimal operation."

#2 - 08/13/2019 12:53 PM - Jim Pingle

- Category set to Operating System

- Status changed from New to Resolved

This has been in place for some time now for hardware we can predict. The OS is a bit smarter in other situations as well. There may be some edge cases where users need to adjust manually but I don't think we'll ever eliminate all of those.