

pfSense - Feature #10678

Allow to select 802.11n channel width (HT)

06/19/2020 08:04 AM - Viktor Gurov

Status:	Feedback	Start date:	06/19/2020
Priority:	Normal	Due date:	
Assignee:	Renato Botelho	% Done:	100%
Category:	Wireless	Estimated time:	0.00 hour
Target version:	2.5.0		

Description

using ``ifconfig -v <wirelessinf> list chan`` possible to see supported HT modes:

```
# ifconfig -v rtwn0_wlan0 list chan
Channel 1 : 2412      MHz 11b      Channel 7 : 2442      MHz 11g ht/20
Channel 1 : 2412      MHz 11g      Channel 8 : 2447      MHz 11b
Channel 1 : 2412      MHz 11g ht/20   Channel 8 : 2447      MHz 11g
Channel 2 : 2417      MHz 11b      Channel 8 : 2447      MHz 11g ht/20
Channel 2 : 2417      MHz 11g      Channel 9 : 2452      MHz 11b
Channel 2 : 2417      MHz 11g ht/20   Channel 9 : 2452      MHz 11g
Channel 3 : 2422      MHz 11b      Channel 9 : 2452      MHz 11g ht/20
...
```

with ``ifconfig <wirelessinf> channel N:ht/WIDTH`` you can set the desired channel width, i.e.

```
# ifconfig rtwn0_wlan0 channel 1:ht/20
```

see "channel" section of

<https://www.freebsd.org/cgi/man.cgi?query=ifconfig&apropos=0&sektion=0&manpath=FreeBSD+12.1-RELEASE+and+Ports&arch=default&format=html>:

channel number

Set a single desired channel. Channels range from 1 to 255, but the exact selection available depends on the region your adaptor was manufactured for. Setting the channel to any, or - will clear any desired channel and, if the device is marked up, force a scan for a channel to operate on. Alternatively the frequency, in megahertz, may be specified instead of the channel number.

When there are several ways to use a channel the channel number/frequency may be appended with attributes to clarify. For example, if a device is capable of operating on channel 6 with 802.11n and 802.11g then one can specify that g-only use should be used by specifying ``6:g``. Similarly the channel width can be specified by appending it with ``/``; e.g., ``6/40`` specifies a 40MHz wide channel, These attributes can be combined as in: ``6:ht/40``. The full set of flags specified following a ``:`` are: a (802.11a), b (802.11b), d (Atheros Dynamic Turbo mode), g (802.11g), h or n (802.11n aka HT), s (Atheros Static Turbo mode), and t (Atheros Dynamic Turbo mode, or appended to ``st`` and ``dt``). The full set of channel widths following a ``/`` are: 5 (5MHz aka quarter-rate channel), 10 (10MHz aka half-rate channel), 20 (20MHz mostly for use in specifying ht20), and 40 (40MHz mostly for use in specifying ht40). In addition, a 40MHz HT channel specification may include the location of the extension channel by appending ``+`` or ``-`` for above and below, respec-

tively; e.g., ``2437:ht/40+'' specifies 40MHz wide HT operation with the center channel at frequency 2437 and the extension channel above.

see also <https://forum.netgate.com/topic/83312/question-about-clone-interface-20mhz-width>

Associated revisions

Revision 91fd7459 - 06/23/2020 02:23 AM - Viktor Gurov

Allow to change WiFi channel width. Implements #10678

History

#1 - 06/19/2020 08:07 AM - Viktor Gurov

<https://github.com/pfsense/pfsense/pull/4363>

#2 - 06/22/2020 12:44 PM - Jim Pingle

- Status changed from New to Pull Request Review
- Target version set to 2.5.0

#3 - 06/24/2020 09:29 AM - Renato Botelho

- Status changed from Pull Request Review to Feedback
- Assignee set to Renato Botelho
- % Done changed from 0 to 100

PR has been merged. Thanks!