

strongSwan - Bug #1212

forecast iptables commit failed: Invalid argument

19.11.2015 22:38 - John Woo

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|--------------------------|----------------|------------------------|------------|
| Status: | Closed | Start date: | 19.11.2015 |
| Priority: | Normal | Due date: | |
| Assignee: | Tobias Brunner | Estimated time: | 0.00 hour |
| Category: | libcharon | Resolution: | Fixed |
| Target version: | 5.4.0 | | |
| Affected version: | 5.3.3 | | |

Description

Hi,

i'm using openwrt firmware (arm architecture) and there is an issue with forecast plugin.
can we rule out this issue?

last comment from martin willi:

<https://lists.strongswan.org/pipermail/users/2015-June/008317.html>

i will do anything to help. debug with gdb for example.

thanks,
docmax

Associated revisions

Revision c4cb652a - 03.03.2016 17:20 - Tobias Brunner

connmark: Fix alignment when adding rules

The structs that make up a message sent to the kernel have all to be aligned with XT_ALIGN. That was not necessarily the case when initializing the complete message as struct.

Fixes #1212.

Revision 44456532 - 03.03.2016 17:20 - Tobias Brunner

forecast: Fix alignment when adding rules

Basically the same issue as with the connmark plugin.

Fixes #1212.

History

#1 - 20.11.2015 10:18 - Tobias Brunner

- Status changed from New to Feedback

So why don't you start by answering Martin's questions?

#2 - 21.11.2015 00:13 - John Woo

Where is the question? In that thread? It's not my thread.

The architecture of OpenWrt is:

```
root@router:~# uname -a
Linux router 4.1.11 #4 Thu Nov 19 22:13:40 CET 2015 mips n
```

#3 - 23.11.2015 11:33 - Tobias Brunner

Where is the question? In that thread? It's not my thread.

Yes. Martin asked the original poster whether his kernel supports the MARK target and the udp/esp matches.

Linux router 4.1.11 #4 Thu Nov 19 22:13:40 CET 2015 mips n

He also mentioned that he only tested it on x86/x64 and that it could be an issue with the architecture. Since you are running on MIPS (big-endian) it could be an endianness or an alignment issue.

#4 - 23.11.2015 21:11 - John Woo

right, and how can we proceed further?
i enabled my kernel to support MARK.

#5 - 24.11.2015 20:55 - Saso Slavicic

It's an alignment issue. Each of the structs in struct ipt should be sized XT_ALIGN(sizeof).
I don't think this can be achieved with static structs.

I have test-tried 2 approaches:

- use existing struct ipt, but then memcpy each member into dynamically allocated memory at the proper (aligned) offset (& fixing _size and _offset)
- allocate dynamic struct *ipt and build it with pointers

In both cases the rules load into OpenWRT Strongswan, but I must have missed something as the best I can get is:

```
57 8083 CONNMARK all -- * * 84.xx.xx.xx 89.xx.xx.xx policy match dir in pol ipsec
spi 0xc09484c2[16 bytes of unknown target data]
64 7143 CONNMARK all -- * * 89.xx.xx.xx 84.xx.xx.xx [16 bytes of unknown target d
ata]
```

(the PREROUTING rule seems ok though...)

#6 - 25.11.2015 11:44 - Saso Slavicic

- File 999-connmark_align.patch added

So it appears my code was ok, but I was missing libxt_connmark on my openwrt.

I've cleanup my patch a bit and I'm posting it here. This works for me on mips OpenWRT (ar71xx).

#7 - 29.11.2015 03:39 - John Woo

i still get the error

```
Sun Nov 29 03:35:31 2015 authpriv.info : 08[IKE] CHILD_SA ikev2-pubkey{1} established with SPIs ceb33618_i 670c4770_o and TS 192.168.1.0/24
239.255.255.250/32 === 192.168.1.239/32 239.255.255.250/32
```

Sun Nov 29 03:35:31 2015 daemon.info : 08[CFG] forecast iptables commit failed: Invalid argument

```
Sun Nov 29 03:35:31 2015 local0.notice vpn: + C=DE, O=docmax-net, CN=aquarium5.docmax-net.docmax.net 192.168.1.239/32 2.204.165.202 --
78.53.156.170 192.168.1.0/24
```

#8 - 29.11.2015 09:26 - Saso Slavicic

There are 2 plugins that use similar code: forecast & connmark. Connmark was apparently based from the forecast plugin code as it prints out exactly the same error message: forecast iptables commit failed (in connmark_listener.c). I was testing connmark plugin and found this report and only later noticed there is another plugin with the same problem :-)

The above patch fixes the connmark plugin. Forecast plugin can be fixed in the same way, with just a few modifications to the above patch.
I can prepare it, if the solution is acceptable.

#9 - 29.11.2015 12:58 - John Woo

yes i noticed this, too. but i don't have the skills to do it. so please provide a patch for forecast.
thx!!

#10 - 29.11.2015 20:00 - Saso Slavicic

- File 999-forecast_align.patch added

Here's the forecast module patch. Note that I haven't tested it beyond compiling.

#11 - 29.11.2015 20:07 - Saso Slavicic

- File 999-forecast_align2.patch added

One typo in the above patch...here's a fixed version :-)

#12 - 29.11.2015 22:29 - John Woo

thank you, it works

#13 - 30.11.2015 17:11 - Tobias Brunner

Could you please try the patches in the *1212-ipt-alignment* branch.

#14 - 01.12.2015 08:02 - Saso Slavicic

Connmark plugin from the 1212-ipt-alignment branch works for me on mips Openwrt.

#15 - 03.03.2016 17:25 - Tobias Brunner

- *Tracker changed from Issue to Bug*

- *Category set to libcharon*

- *Assignee set to Tobias Brunner*

- *Target version set to 5.4.0*

- *Resolution set to Fixed*

#16 - 03.03.2016 17:25 - Tobias Brunner

- *Status changed from Feedback to Closed*

Files

| | | | |
|---------------------------|---------|------------|---------------|
| 999-connmark_align.patch | 5.33 KB | 25.11.2015 | Saso Slavicic |
| 999-forecast_align.patch | 4.26 KB | 29.11.2015 | Saso Slavicic |
| 999-forecast_align2.patch | 4.26 KB | 29.11.2015 | Saso Slavicic |