Wireshark stability - multiple dissector bugs - runtime errors

Summary

This is my naive attempt to fix (hopefully) all of Wireshark dissector runtime errors. In the last few weeks ran fuzzers and wrote some tools to find and disclose security and stability bugs with the sole goal of making Wireshark as stable as possible. I've gathered a decent list of naughty dissectors that are passing NULL pointers to functions when they shouldn't. Obviously this could cause undefined behaviors in runtime and sometimes even crash Wireshark/tshark - runtime error: null pointer passed as argument.

I decided to concentrate everything into a single issue so I won't spam with many "NULL pointer is passed" issues.

To reproduce these issues, one would need to compile tshark with address sanitizers (and specifically UBS - UndefinedBehaviorSanitizer). There are 5 main categories of runtime errors:

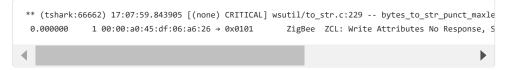
- NULL pointer passed to bytes_to_str_punct_maxlen()
- 2. NULL pointer passed as argument to epan/tvbuff.c:932:17
- 3. NULL pointer passed as argument to wsutil/wmem/wmem_array.c:119:63
- 4. Store to misaligned address
- 5. X is outside the range of representable values of type unsigned int

[Fixed?] Dissector

- ACF-LIN
- ACF-CAN
- ANSI C12.22
- SMB2 (SMB3)
- ✓ CIP
- DTLS
- ✓ LTP
- SSLv3
 CSN1 (X2AP)
- DNS
- ✓ SNMP
- ENIP
- Bundle
- ✓ NBAP✓ TCP
- ✓ CoAP
- ✓ IPDC
- ✓ CL-PRES
- 802.11
- NFS
- DCERPC
- ☑ RPC
- ✓ BPv7
- 5co-legacy
- 6LoWPAN
- JXTA

Samples

ZigBee-ZCL (zbee_zcl)



• pcap: <u>\$\frac{1}{2}\$ zbee zero length passed to bytes to str punct max.pcap.ng</u>

• pcap: <u>@ acf-lin zero length passed to bytes to str punct max.pcapng</u>

ACF-CAN

• pcap: <u>@ acf-can zero length passed to bytes to str punct max.pcapng</u>

ANSI C12.22

```
tshark_errors/error/e607ffef414486cb75738d15e41a7fbea057137a.pcap
../epan/tvbuff.c:932:17: runtime error: null pointer passed as argument 1, which is declared to neve
/usr/include/string.h:44:28: note: nonnull attribute specified here

SUMMARY: UndefinedBehaviorSanitizer: undefined-behavior ../epan/tvbuff.c:932:17 in

1 0.000000 170.170.170.170 → 170.170.170.170 ANSI C12.22 169 1153 → 36659 [PSH, CWR, Reserved]
```

• pcap: <u>@ e607ffef414486cb75738d15e41a7fbea057137a.pcap</u>

SMB2 (SMB3)

```
tshark_errors/error/f85d55d45096d2b94e9794ea7342935770fc70aa.pcap
../wsutil/wmem/wmem_array.c:119:63: runtime error: null pointer passed as argument 2, which is decla
/usr/include/string.h:44:28: note: nonnull attribute specified here

SUMMARY: UndefinedBehaviorSanitizer: undefined-behavior ../wsutil/wmem/wmem_array.c:119:63 in
../epan/tvbuff_lznt1.c:135:10: runtime error: null pointer passed as argument 1, which is declared t
/usr/include/string.h:44:28: note: nonnull attribute specified here

SUMMARY: UndefinedBehaviorSanitizer: undefined-behavior ../epan/tvbuff_lznt1.c:135:10 in

1  0.000000 170.170.170.170 → 170.170.170.170 SMB2 112 Decomp. SMB3[BoundErrorUnreassembled Pac

tshark_errors/error/762ec73eaa1361726383f30fa3e1d6c787c5d9fe.pcap
../wsutil/wmem/wmem_array.c:119:63: runtime error: null pointer passed as argument 2, which is decla
/usr/include/string.h:44:28: note: nonnull attribute specified here

SUMMARY: UndefinedBehaviorSanitizer: undefined-behavior ../wsutil/wmem/wmem_array.c:119:63 in

1  0.000000 170.170.170.170 → 170.170.170.170 SMB2 120 Comp. SMB3 (unknown)
```

pcap: <a href="mailto:free-fitted-fitt

CIP

```
tshark_errors/error/2a616f06df5882de9dbf1925fa6e3843e14dc078.pcap
../epan/tvbuff.c:932:17: runtime error: null pointer passed as argument 1, which is declared to neve
/usr/include/string.h:44:28: note: nonnull attribute specified here

SUMMARY: UndefinedBehaviorSanitizer: undefined-behavior ../epan/tvbuff.c:932:17 in

1  0.000000 170.170.170.170 → 170.170.170.170 CIP 109 Multiple Service Packet: Start, [BoundErr

tshark_errors/error/a513e0347ba7c4f33abc310247c0644e03fc22ae.pcap
../epan/tvbuff.c:932:17: runtime error: null pointer passed as argument 1, which is declared to neve
/usr/include/string.h:44:28: note: nonnull attribute specified here

SUMMARY: UndefinedBehaviorSanitizer: undefined-behavior ../epan/tvbuff.c:932:17 in

1  0.000000 170.170.170.170 → 170.170.170.170 CIP 108 Service (0x00)
```

pcap: dec-24616f06df5882de9dbf1925fa6e3843e14dc078.pcap
 a513e0347ba7c4f33abc310247c0644e03fc22ae.pcap

DTLS

```
tshark_errors/error/14041d11455b0a6fdc9a940ff356982be32142dd.pcap
../epan/tvbuff.c:932:17: runtime error: null pointer passed as argument 1, which is declared to neve
/usr/include/string.h:44:28: note: nonnull attribute specified here
SUMMARY: UndefinedBehaviorSanitizer: undefined-behavior ../epan/tvbuff.c:932:17 in
1 0.000000 170.170.170.170 → 170.170.170.170 DTLS 1.0 (OpenSSL pre 0.9.8f) 112 Certificate Req
```

LTP

```
tshark_errors/error/1901d52c701302cf5de33c95f652b64e532dade8.pcap
../epan/tvbuff.c:932:17: runtime error: null pointer passed as argument 1, which is declared to neve
/usr/include/string.h:44:28: note: nonnull attribute specified here

SUMMARY: UndefinedBehaviorSanitizer: undefined-behavior ../epan/tvbuff.c:932:17 in

1 0.000000 170.170.170.170 → 170.170.170.170 LTP Segment 101 Protocol Error
```

pcap: figure-4
 <la>figure-4
 pcap: fig

SSLv3

tshark_errors/error/94be75d690a7301ade3e70769a1f1dbc9a3e3df7.pcap
../epan/tvbuff.c:932:17: runtime error: null pointer passed as argument 1, which is declared to neve
/usr/include/string.h:44:28: note: nonnull attribute specified here

SUMMARY: UndefinedBehaviorSanitizer: undefined-behavior ../epan/tvbuff.c:932:17 in

1 0.000000 170.170.170.170 → 170.170.170.170 SSLv3 124 New Session Ticket, New Session Ticket,

tshark_errors/error/30a018ee7c96129f081ca38dda267cd83139095b.pcap
../epan/tvbuff.c:932:17: runtime error: null pointer passed as argument 1, which is declared to neve
/usr/include/string.h:44:28: note: nonnull attribute specified here

SUMMARY: UndefinedBehaviorSanitizer: undefined-behavior ../epan/tvbuff.c:932:17 in

1 0.000000 170.170.170.170 → 170.170.170.170 SSLv3 124 End of Early Data, New Session Ticket,

pcap: mailto:specifical-94be75d690a7301ade3e70769a1f1dbc9a3e3df7.pcap specifical-94be75d690a7301ade3e70769a1f1dbc9a3e3df7.pcap specifical-94be75d690a7301ade3e70769a1f1dbc9a3e3df7.pcap specifical-94be75d690a7301ade3e70769a1f1dbc9a3e3df7.pcap specifical-94be75d690a7301ade3e70769a1f1dbc9a3e3df7.pcap specifical-94be75d690a7301ade3e70769a1f1dbc9a3e3df7.pcap specifical-94be75d690a7301ade3e70769a1f1dbc9a3e3df7.pcap specifical-94be75d690a7301ade3e70ad

CSN1 (X2AP)

pcap: 6 5da74e09f3d5a3a0af8d8c8a6142bf644217bcc0.pcap 6 dd7fe5d01f155faebb8021e22a2fa27c9d2b9825.pcap

tshark_errors/error/746d5475691e3bd7b74e7a78ae3cd9491d9f724d.pcap
../epan/tvbuff.c:932:17: runtime error: null pointer passed as argument 1, which is declared to neve
/usr/include/string.h:44:28: note: nonnull attribute specified here
SUMMARY: UndefinedBehaviorSanitizer: undefined-behavior ../epan/tvbuff.c:932:17 in
1 0.000000 170.170.170.170 → 170.170.170.170 DNS 151 Unknown operation (9) 0x0000 HTTPS[BoundE

tshark_errors/error/1d3bb7805e95fba0ae43bc87ec0963acc13a32f4.pcap
../epan/tvbuff.c:932:17: runtime error: null pointer passed as argument 1, which is declared to neve
/usr/include/string.h:44:28: note: nonnull attribute specified here

SUMMARY: UndefinedBehaviorSanitizer: undefined-behavior ../epan/tvbuff.c:932:17 in
1 0.000000 170.170.170.170 → 170.170.170 DNS 154 Standard query 0x0267 SVCB[BoundErrorUnre

pcap: https://dx.de/14.35691e3bd7b74e7a78ae3cd9491d9f724d.pcap https://dx.de/14.35691e3bd7b74e7a78ae3cd9491d9f724d.pcap https://dx.de/14.35691e3bd7b74e7a78ae3cd9491d9f724d.pcap https://dx.de/14.35691e3bd7b74e7a78ae3cd9491d9f724d.pcap https://dx.de/14.35691e3bd7b74e7a78ae3cd9491d9f724d.pcap https://dx.de/14.35691e3bd7b74e7a78ae3cd9491d9f724d.pcap https://dx.de/14.35691e3bd7b74e7ae3cd9491d9f724d.pcap https://dx.de/14.35691e3bd7b74e7ae3cd9491d9f724d.pcap <a href="https://dx.de/14.35691e3bd7b74e7ae3cd94e3bd7b7ae3cd94e3bd7b7e7ae3cd94e3bd7b7e7ae3cd94e3bd7b7e7ae3cd94e3bd7b7e7ae3cd94e3bd7b7e7ae3cd94e3b

SNMP

tshark_errors/error/42458338bed52e817ef07d6caa391106bf9a3a3e.pcap
../epan/tvbuff.c:932:17: runtime error: null pointer passed as argument 1, which is declared to neve
/usr/include/string.h:44:28: note: nonnull attribute specified here

SUMMARY: UndefinedBehaviorSanitizer: undefined-behavior ../epan/tvbuff.c:932:17 in

1 0.000000 170.170.170.170 → 170.170.170.170 SNMP 126 get-response itu-t

• pcap: <u>\$\infty\$ 42458338bed52e817ef07d6caa391106bf9a3a3e.pcap</u>

ENIP

tshark_errors/error/64112d632148396fe46936637ca6e019c40bb53d.pcap
../epan/tvbuff.c:932:17: runtime error: null pointer passed as argument 1, which is declared to neve
/usr/include/string.h:44:28: note: nonnull attribute specified here

SUMMARY: UndefinedBehaviorSanitizer: undefined-behavior ../epan/tvbuff.c:932:17 in

1 0.000000 170.170.170.170 → 170.170.170 ENIP 119 Get Attribute List | Unknown Command (0x

• pcap: 64112d632148396fe46936637ca6e019c40bb53d.pcap

Bundle

tshark_errors/error/88b8ef634bfa18e1ec595a9b0d6382637ce8f827.pcap
../epan/tvbuff.c:932:17: runtime error: null pointer passed as argument 1, which is declared to neve
/usr/include/string.h:44:28: note: nonnull attribute specified here
SUMMARY: UndefinedBehaviorSanitizer: undefined-behavior ../epan/tvbuff.c:932:17 in
1 0.000000 170.170.170.170 → 170.170.170 Bundle 106 Protocol Error

• pcap: <u>@ 88b8ef634bfa18e1ec595a9b0d6382637ce8f827.pcap</u>

NBAP

tshark_errors/error/f33b37100c1014ebde8859eb17c23021c47ed010.pcap
../epan/tvbuff.c:932:17: runtime error: null pointer passed as argument 1, which is declared to neve
/usr/include/string.h:44:28: note: nonnull attribute specified here
SUMMARY: UndefinedBehaviorSanitizer: undefined-behavior ../epan/tvbuff.c:932:17 in
1 0.000000 170.170.170.170 → 170.170.170.170 NBAP 123 id-cellReconfiguration (MasterInformati

• pcap: <u>\$\begin{align*}{c} \frac{1}{6} & \text{f33b37100c1014ebde8859eb17c23021c47ed010.pcap} \end{align*}\$</u>

```
tshark_errors/error/22247efd63b724b44633847393617375d026d315.pcap
../epan/tvbuff.c:2232:35: runtime error: null pointer passed as argument 1, which is declared to nev
/usr/include/string.h:92:34: note: nonnull attribute specified here

SUMMARY: UndefinedBehaviorSanitizer: undefined-behavior ../epan/tvbuff.c:2232:35 in

1  0.000000 196.0.0.0 → 0.0.160.158 TCP 129 54051 → 30028 [SYN, PSH, ACK, CWR, Reserved] Se

tshark_errors/error/ea86b73f7579aa746d04ba6d186c52f6497d8f4e.pcap
../epan/tvbuff.c:2232:35: runtime error: null pointer passed as argument 1, which is declared to nev
/usr/include/string.h:92:34: note: nonnull attribute specified here

SUMMARY: UndefinedBehaviorSanitizer: undefined-behavior ../epan/tvbuff.c:2232:35 in

1  0.0000000    0.0.0.0 → 160.158.211.35 TCP 127 30028 → 28928 [SYN, PSH, ACK, CWR, Reserved]
```

pcap: https://doi.org/10.2247/efd63b724b44633847393617375d026d315.pcap https://doi.org/10.2247/efd63b724b44633847393617375d026d315.pcap https://doi.org/10.2247/efd63b724b44633847393617375d026d315.pcap https://doi.org/10.2247/efd63b724b44633847393617375d026d315.pcap https://doi.org/10.2247/efd63b724b44633847393617375d026d315.pcap

CoAP

```
tshark_errors/error/feada1a8b3048fd4b263cbfd2c8f4932f77b007e.pcap
../epan/tvbuff.c:932:17: runtime error: null pointer passed as argument 1, which is declared to neve
/usr/include/string.h:44:28: note: nonnull attribute specified here

SUMMARY: UndefinedBehaviorSanitizer: undefined-behavior ../epan/tvbuff.c:932:17 in

1 0.000000 170.170.170.170 → 170.170.170.170 COAP 143 RST, MID:32667, Unknown 255[BoundErrorUn
```

• pcap: <u>6 feada1a8b3048fd4b263cbfd2c8f4932f77b007e.pcap</u>

IPDC

tshark_errors/error/8583c6e8b477b0b8a15e31ac207a02d8abf50200.pcap
../epan/dissectors/packet-ipdc.c:828:25: runtime error: 2.69599e+67 is outside the range of represen
SUMMARY: UndefinedBehaviorSanitizer: undefined-behavior ../epan/dissectors/packet-ipdc.c:828:25 in
1 0.0000000 170.170.170.170 → 170.170.170.170 IPDC 126 14001 → 6668 [PSH, URG, NS, Reserved] Se

• pcap: <u>\$\frac{1}{2}\$ 8583c6e8b477b0b8a15e31ac207a02d8abf50200.pcap</u>

CL-PRES

tshark_errors/error/6d96ffe15d77326b3877e1837ba633d3bc2df741.pcap
../epan/tvbuff.c:932:17: runtime error: null pointer passed as argument 1, which is declared to neve
/usr/include/string.h:44:28: note: nonnull attribute specified here
SUMMARY: UndefinedBehaviorSanitizer: undefined-behavior ../epan/tvbuff.c:932:17 in
1 0.000000 170.170.170.170 → 170.170.170.170 CL-PRES 122 [Malformed Packet]

• pcap: 6d96ffe15d77326b3877e1837ba633d3bc2df741.pcap

802.11

tshark_errors/error/6d9b3270b75a036f6ccff68aed5a863add4084dc.pcap
../epan/tvbuff.c:932:17: runtime error: null pointer passed as argument 1, which is declared to neve
/usr/include/string.h:44:28: note: nonnull attribute specified here

SUMMARY: UndefinedBehaviorSanitizer: undefined-behavior ../epan/tvbuff.c:932:17 in

1 0.000000 170.170.170.170 → 170.170.170.170 802.11 167 PV1 Management[Malformed Packet]

• pcap: <u>6d9b3270b75a036f6ccff68aed5a863add4084dc.pcap</u>

tshark_errors/error/e2d684637c2c6810639d33d11b1fd95adf94b169.pcap
../epan/tvbuff.c:932:17: runtime error: null pointer passed as argument 1, which is declared to neve
/usr/include/string.h:44:28: note: nonnull attribute specified here

SUMMARY: UndefinedBehaviorSanitizer: undefined-behavior ../epan/tvbuff.c:932:17 in

1 0.0000000 170.170.170.170 → 170.170.170.170 NFS CB 119 FragmentFragment ; V384460390

• pcap: <u>@ e2d684637c2c6810639d33d11b1fd95adf94b169.pcap</u>

DCERPC

tshark_errors/error/7c04dfdd49cef00fa85cebf2a7af47181a12f9ad.pcap
../epan/tvbuff.c:932:17: runtime error: null pointer passed as argument 1, which is declared to neve
/usr/include/string.h:44:28: note: nonnull attribute specified here
SUMMARY: UndefinedBehaviorSanitizer: undefined-behavior ../epan/tvbuff.c:932:17 in
1 0.000000 170.170.170.170 → 170.170.170 DCERPC 134 RPC-over-HTTP RTS: call_id: 12763842,

RPC

tshark_errors/error/d6ca8adc49c920a3e628c909e144b717112eb236.pcap
../epan/tvbuff.c:932:17: runtime error: null pointer passed as argument 1, which is declared to neve
/usr/include/string.h:44:28: note: nonnull attribute specified here
SUMMARY: UndefinedBehaviorSanitizer: undefined-behavior ../epan/tvbuff.c:932:17 in

1 0.000000 170.170.170.170 → 170.170.170.170 RPC 116 FragmentFragmentFragment

• pcap: d6ca8adc49c920a3e628c909e144b717112eb236.pcap

BPv7

tshark_errors/error/34c6678ceeeb0676f126bd8fd3c4a60a53cbbf2b.pcap
../epan/tvbuff.c:932:17: runtime error: null pointer passed as argument 1, which is declared to neve
/usr/include/string.h:44:28: note: nonnull attribute specified here

SUMMARY: UndefinedBehaviorSanitizer: undefined-behavior ../epan/tvbuff.c:932:17 in

1 0.0000000 170.170.170.170 → 170.170.170.170 BPv7 80 [Malformed Packet]

• pcap: <u>\$\frac{1}{26}\$ 34c6678ceeeb0676f126bd8fd3c4a60a53cbbf2b.pcap</u>

5co-legacy

tshark_errors/error/bd87afea90f7f96919d2af8895c3fb2ddb6c9d54.pcap
../epan/tvbuff.c:932:17: runtime error: null pointer passed as argument 1, which is declared to neve
/usr/include/string.h:44:28: note: nonnull attribute specified here

SUMMARY: UndefinedBehaviorSanitizer: undefined-behavior ../epan/tvbuff.c:932:17 in

1 0.000000 170.170.170.170 → 170.170.170.170 5co-legacy 126 I2C Read and write with ack ID=179

• pcap: <u>@ bd87afea90f7f96919d2af8895c3fb2ddb6c9d54.pcap</u>

6LoWPAN

tshark_errors/error/695ec0c3565e61008b761ccb37bb9351efb2c1b2.pcap
../epan/tvbuff.c:932:17: runtime error: null pointer passed as argument 1, which is declared to neve
/usr/include/string.h:44:28: note: nonnull attribute specified here

SUMMARY: UndefinedBehaviorSanitizer: undefined-behavior ../epan/tvbuff.c:932:17 in

1 0.000000 0x8888 → 6LoWPAN 101 Data, Src: 0x8888[BoundErrorUnreassembled P

• pcap: 695ec0c3565e61008b761ccb37bb9351efb2c1b2.pcap

JXTA

tshark_errors/error/daa5b5267078cc99209152a253546e0665989768.pcap
../epan/tvbuff.c:2232:35: runtime error: null pointer passed as argument 1, which is declared to nev
/usr/include/string.h:92:34: note: nonnull attribute specified here

SUMMARY: UndefinedBehaviorSanitizer: undefined-behavior ../epan/tvbuff.c:2232:35 in

1 0.000000 136.136.136.136 → 136.131.18.2 JXTA 129 Welcome

• pcap: daa5b5267078cc99209152a253546e0665989768.pcap

Build information

TShark (Wireshark) 3.7.0 (v3.7.0rc0-844-g14a1dfbe1083)

Edited 9 months ago by Sharon Brizinov

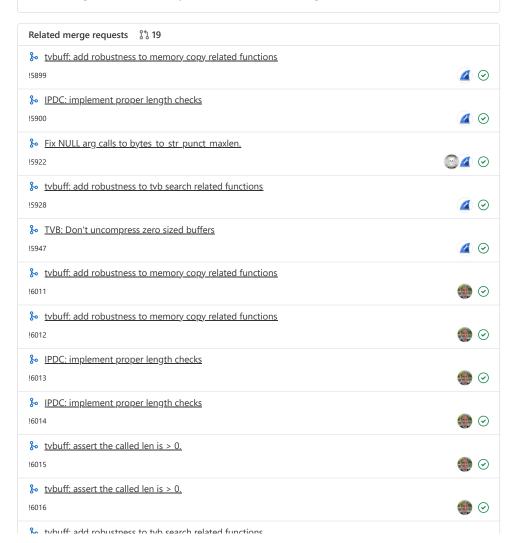
To upload designs, you'll need to enable LFS and have an admin enable hashed storage. More information

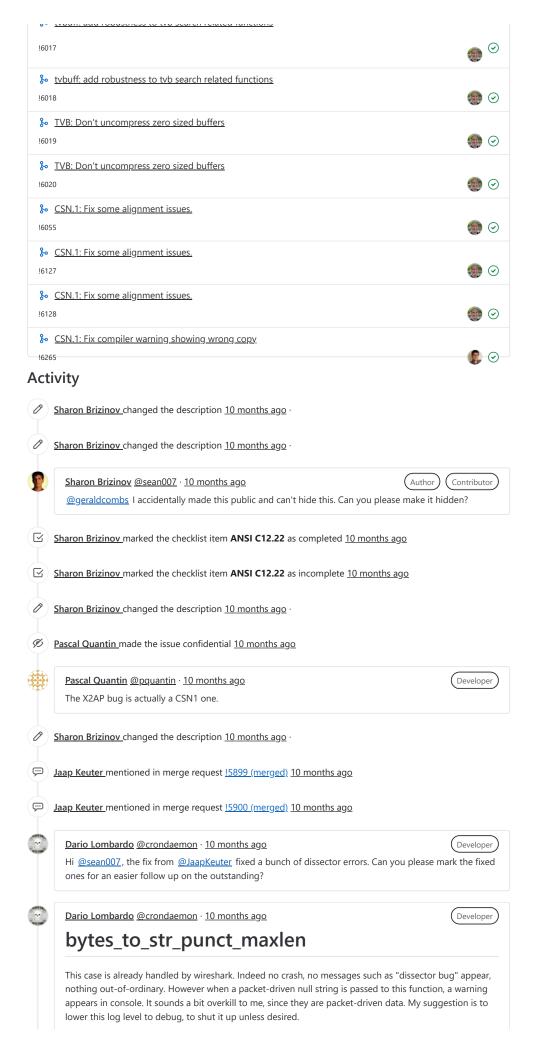
Tasks 🗿 0

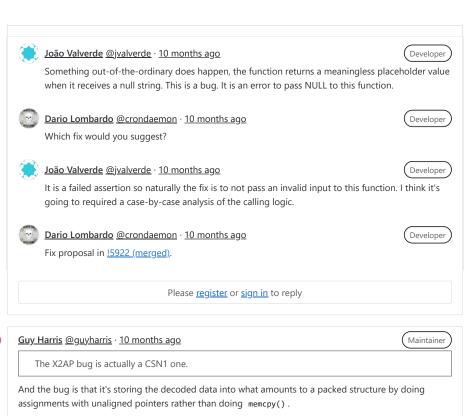
No tasks are currently assigned. Use tasks to break down this issue into smaller parts.

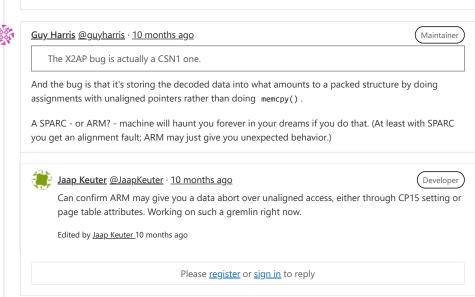
Linked items 🗇 0

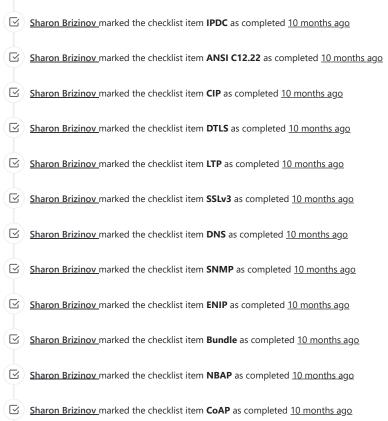
Link issues together to show that they're related or that one is blocking others. Learn more.

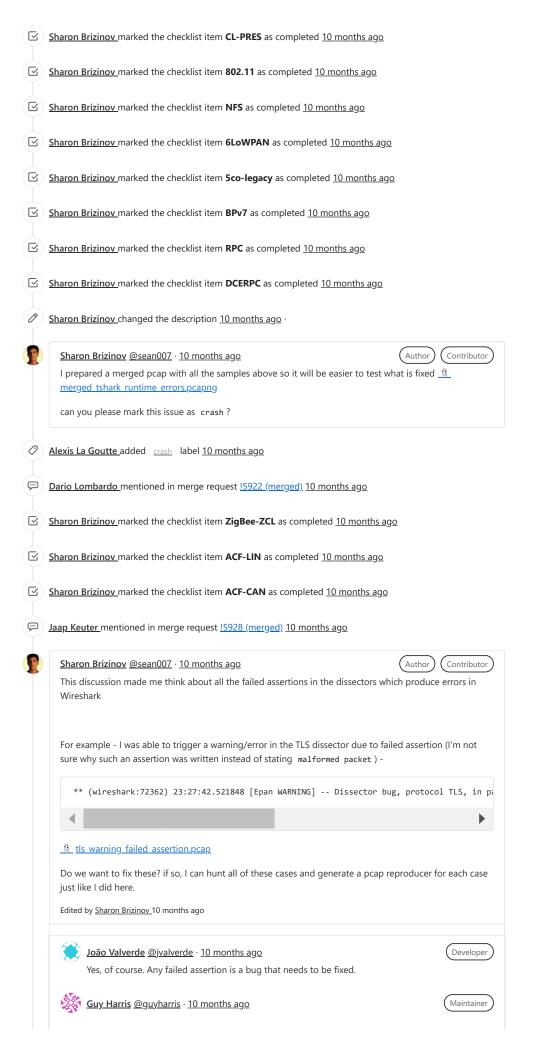












Anything in the dissection that says "Dissector Bug" is, as it says on the tin, a dissector bug. (Well, with the obvious exception of, for example, the HTML reply from a GET request when the page being fetched has the title "Dissector Bug".:-))



Sharon Brizinov @sean007 · 10 months ago

(Author

(Contributor

No problem. I'm on it. The next stable version of Wireshark (v3.6.2?) will be the most stable and secure version ever existed $\stackrel{\text{ce}}{=}$

BTW - I have many more ideas for making Wireshark more secure and stable. Is there a Slack/Telegram/Discord/Whatever channel we could discuss this internally?

Edited by Sharon Brizinov 10 months ago



Dario Lombardo @crondaemon · 10 months ago

Developer

The dev mailing list is the proper place: wireshark-dev@wireshark.org.



Alexis La Goutte @alagoutte · 10 months ago

There is also Wireshark developer den (the next is planned Tuesday, February 1st, more info on wireshark-dev)



Alexis La Goutte @alagoutte · 10 months ago

Developer

What fuzzer do you are using? may be we can add on CI/CD



Sharon Brizinov @sean007 · 10 months ago



Contributor

Looks good. I'll join. I think it could be much easier to setup a channel in a direct messaging platform such as Slack/Discord. I'll raise this on the dev den.

Regarding the fuzzer - I'm mostly using libfuzzer but I'm doing a lot of manual work on top of it to make sure we get full coverage. In addition, I'm going over Wireshark code and manually building crafted packets to reach interesting code flows to trigger a potential vulns.

Edited by Sharon Brizinov 10 months ago



Alexis La Goutte @alagoutte · 10 months ago

Developer

there is some plan about Slack/Discord but not yet available...

ok for libfuzzer, it can be possible to automatize some stuff?



Graham Bloice @graham.bloice · 10 months ago

(Developer

There is a Slack workspace, "wireshark.slack.com" but I think it's a closed group or whatever the Slack terminology for that is.



Sharon Brizinov @sean007 · 10 months ago

Author

Contributor

As requested I opened a new Issue with all the warning I could possibly find. I did both manual and automation testing to try to reach all assertion failures in all the dissectors. https://gitlab.com/wireshark/wireshark/-/issues/17890

@alagoutte IMO the important aspect is to go over all the corpuses I found before any stable release, and obviously enrich it all the time. I will raise this in the upcoming dev den.

@graham.bloice how can I get an invite to that Slack workspace ?

Edited by Sharon Brizinov 10 months ago



Graham Bloice @graham.bloice · 10 months ago

(Developer

@geraldcombs Is the wireshark.slack.workspace only for core devs, I'm not sure.



Alexis La Goutte @alagoutte · 10 months ago

Developer

it is for -core only



Sharon Brizinov @sean007 · 10 months ago



Contributor

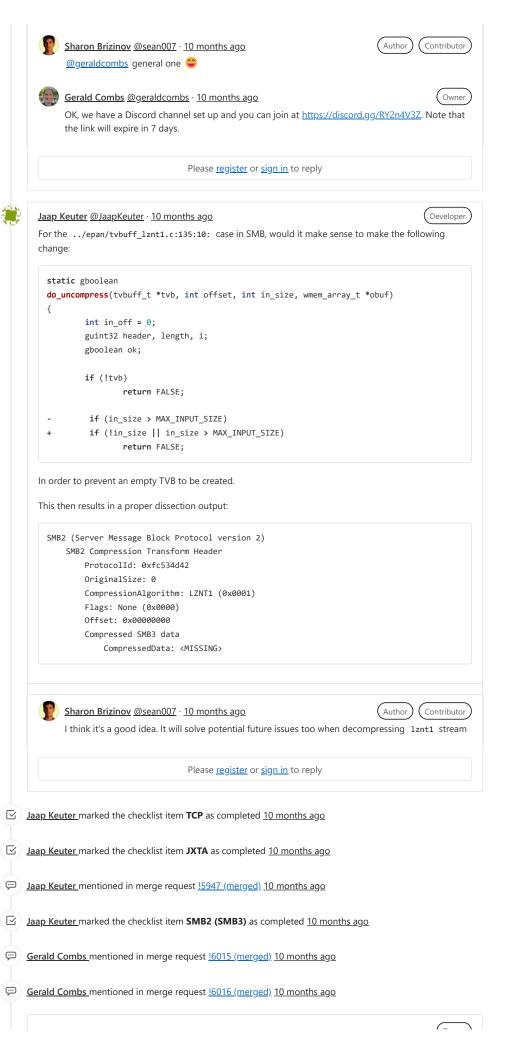
@alagoutte can you add me to a specific channel to discuss security aspects of Wireshark? I have some ideas which I want to share & collaborate.



Gerald Combs @geraldcombs · 10 months ago



@sean007 were you looking for a general "security" channel or one specific to the issues here?





<u>Gerald Combs</u> @geraldcombs · 10 months ago Backport status:

(Owner)

Master MR	Master Commit	3.6 MR	3.6 Commit	3.4 MR	3.4 Commit
!5899 (merged)	<u>1b461768</u>	!6012 (merged)	<u>9544ddb2</u>	!6011 (merged)	<u>7a17991d</u>
!5900 (merged)	<u>5ee31161</u>	!6013 (merged)	e66bcc2a	!6014 (merged)	<u>2a4ac6e4</u>
!5922 (merged)	<u>f7b6ebcc</u>	!6015 (merged)	<u>cf7f98ca</u>	!6016 (merged)	95242073
!5928 (merged)	<u>3c4d2a28</u>	!6017 (merged)	a2eb6dc5	!6018 (merged)	<u>e32f54a5</u>
!5947 (merged)	e1f025d9	!6019 (merged)	2fa40b82	!6020 (merged)	<u>8e93fe67</u>
!6055 (merged)	1fd18538	!6127 (merged)	<u>30b84545</u>	!6128 (merged)	<u>62fae896</u>

Edited by Gerald Combs 9 months ago

- Dario Lombardo mentioned in commit cf7f98ca 9 months ago
- Gerald Combs mentioned in merge request 16055 (merged) 9 months ago
- Sharon Brizinov marked the checklist item CSN1 (X2AP) as completed 9 months ago



<u>Sharon Brizinov</u> @sean007 ⋅ 9 months ago Amazing



(Contributor

Dario Lombardo mentioned in commit 95242073 9 months ago

- © Gerald Combs made the issue visible to everyone 9 months ago
- Gerald Combs mentioned in merge request <u>!6127 (merged)</u> 9 months ago
- Gerald Combs mentioned in merge request !6128 (merged) 9 months ago
- Gerald Combs mentioned in commit 30b84545 9 months ago
- Gerald Combs mentioned in commit 62fae896 9 months ago
- Gerald Combs closed 9 months ago



Gerald Combs @geraldcombs · 9 months ago

Owner

CSN1 (X2AP)

This has been assigned CVE-2022-0582.

Gerald Combs mentioned in merge request 16265 (merged) 9 months ago

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