

New issue

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2 Potential Buffer Overflow Vulnerabilities #408

Open zhanggenex opened this issue on Jul 19, 2019 · 0 comments

Assignees



Labels

fuzzing

zhanggenex commented on Jul 19, 2019 • edited

bento4

version

bento4 1.5.1.0

description

mp42acc 1.0

download link

<https://www.bento4.com/>

others

please send email to teamseri0us360@gmail.com if you have any questions.

(1) AP4_BitReader::SkipBits@Ap4Utils.cpp-548__heap-buffer-overflow

description

An issue was discovered in bento4 1.5.1.0, There is a/an heap-buffer-overflow in function AP4_BitReader::SkipBits at Ap4Utils.cpp-548

commandline

mp42aac @@ a.aac

source

```
544     m_BitsCached = AP4_WORD_BITS-n;
545     m_Position += AP4_WORD_BYTES;
546 } else {
547     m_BitsCached = 0;
548     m_Cache = 0;
549 }
550 }
551 }
552
553 /*-----
```

bug report

```
=====
==26617==ERROR: AddressSanitizer: heap-buffer-overflow on address 0x6040000de7c at pc 0x0000004867b1 bp 0x7ffc1efd5fc0 sp 0x7ffc1efd5fb0
READ of size 4 at 0x6040000de7c thread T0
#0 0x4867b0 in AP4_BitReader::SkipBits(unsigned int) /src/bento4/Source/C++/Core/Ap4Utils.cpp:548
#1 0x5bb555 in AP4_Dac4Atom::AP4_Dac4Atom(unsigned int, unsigned char const*) /src/bento4/Source/C++/Core/Ap4Dac4Atom.cpp:174
#2 0x5bc562 in AP4_Dac4Atom::Create(unsigned int, AP4_ByteStream&) /src/bento4/Source/C++/Core/Ap4Dac4Atom.cpp:56
#3 0x57e158 in AP4_AtomFactory::CreateAtomFromStream(AP4_ByteStream&, unsigned int, unsigned int, unsigned long long, AP4_Atom*) /src/bento4/Source/C++/Core/Ap4AtomFactory.cpp:72
#4 0x582669 in AP4_AtomFactory::CreateAtomFromStream(AP4_ByteStream&, unsigned long long&, AP4_Atom*) /src/bento4/Source/C++/Core/Ap4AtomFactory.cpp:221
#5 0x5735f8 in AP4_ContainerAtom::ReadChildren(AP4_AtomFactory&, AP4_ByteStream&, unsigned long long) /src/bento4/Source/C++/Core/Ap4ContainerAtom.cpp:194
#6 0x521289 in AP4_SampleEntry::Read(AP4_ByteStream&, AP4_AtomFactory&) /src/bento4/Source/C++/Core/Ap4SampleEntry.cpp:115
#7 0x521289 in AP4_AudioSampleEntry::AP4_AudioSampleEntry(unsigned int, unsigned int, unsigned long long, AP4_Atom*) /src/bento4/Source/C++/Core/Ap4SampleEntry.cpp:420
#8 0x57c49a in AP4_AtomFactory::CreateAtomFromStream(AP4_ByteStream&, unsigned int, unsigned int, unsigned long long, AP4_Atom*) /src/bento4/Source/C++/Core/Ap4AtomFactory.cpp:32
#9 0x582669 in AP4_AtomFactory::CreateAtomFromStream(AP4_ByteStream&, unsigned long long, AP4_Atom*) /src/bento4/Source/C++/Core/Ap4AtomFactory.cpp:221
#10 0x53034e in AP4_StsdAtom::AP4_StsdAtom(unsigned int, unsigned char, unsigned int, AP4_ByteStream&, AP4_AtomFactory&) /src/bento4/Source/C++/Core/Ap4StsdAtom.cpp:101
#11 0x532124 in AP4_StsdAtom::Create(unsigned int, AP4_ByteStream&, AP4_AtomFactory&) /src/bento4/Source/C++/Core/Ap4StsdAtom.cpp:57
#12 0x57e3fb in AP4_AtomFactory::CreateAtomFromStream(AP4_ByteStream&, unsigned int, unsigned int, unsigned long long, AP4_Atom*) /src/bento4/Source/C++/Core/Ap4AtomFactory.cpp:4
#13 0x582669 in AP4_AtomFactory::CreateAtomFromStream(AP4_ByteStream&, unsigned long long&, AP4_Atom*) /src/bento4/Source/C++/Core/Ap4AtomFactory.cpp:221
#14 0x5712f9 in AP4_ContainerAtom::ReadChildren(AP4_AtomFactory&, AP4_ByteStream&, unsigned long long) /src/bento4/Source/C++/Core/Ap4ContainerAtom.cpp:194
#15 0x5712f9 in AP4_ContainerAtom::AP4_ContainerAtom(unsigned int, unsigned long long, bool, AP4_ByteStream&, AP4_AtomFactory&) /src/bento4/Source/C++/Core/Ap4ContainerAtom.cpp:13
#16 0x57121e in AP4_ContainerAtom::Create(unsigned int, unsigned long long, bool, bool, AP4_ByteStream&, AP4_AtomFactory&) /src/bento4/Source/C++/Core/Ap4ContainerAtom.cpp:88
#17 0x57b67e in AP4_AtomFactory::CreateAtomFromStream(AP4_ByteStream&, unsigned int, unsigned int, unsigned long long, AP4_Atom*) /src/bento4/Source/C++/Core/Ap4AtomFactory.cpp:7
#18 0x582669 in AP4_AtomFactory::CreateAtomFromStream(AP4_ByteStream&, unsigned long long&, AP4_Atom*) /src/bento4/Source/C++/Core/Ap4AtomFactory.cpp:221
#19 0x472604 in AP4_DrefAtom::AP4_DrefAtom(unsigned int, unsigned char, unsigned int, AP4_ByteStream&, AP4_AtomFactory&) /src/bento4/Source/C++/Core/Ap4DrefAtom.cpp:84
#20 0x472a7f in AP4_DrefAtom::Create(unsigned int, AP4_ByteStream&, AP4_AtomFactory&) /src/bento4/Source/C++/Core/Ap4DrefAtom.cpp:50
#21 0x57d243 in AP4_AtomFactory::CreateAtomFromStream(AP4_ByteStream&, unsigned int, unsigned int, unsigned long long, AP4_Atom*) /src/bento4/Source/C++/Core/Ap4AtomFactory.cpp:5
#22 0x582669 in AP4_AtomFactory::CreateAtomFromStream(AP4_ByteStream&, unsigned long long&, AP4_Atom*) /src/bento4/Source/C++/Core/Ap4AtomFactory.cpp:221
#23 0x5712f9 in AP4_ContainerAtom::ReadChildren(AP4_AtomFactory&, AP4_ByteStream&, unsigned long long) /src/bento4/Source/C++/Core/Ap4ContainerAtom.cpp:194
#24 0x5712f9 in AP4_ContainerAtom::AP4_ContainerAtom(unsigned int, unsigned long long, bool, AP4_ByteStream&, AP4_AtomFactory&) /src/bento4/Source/C++/Core/Ap4ContainerAtom.cpp:13
#25 0x57121e in AP4_ContainerAtom::Create(unsigned int, unsigned long long, bool, bool, AP4_ByteStream&, AP4_AtomFactory&) /src/bento4/Source/C++/Core/Ap4ContainerAtom.cpp:88
#26 0x57b67e in AP4_AtomFactory::CreateAtomFromStream(AP4_ByteStream&, unsigned int, unsigned int, unsigned long long, AP4_Atom*) /src/bento4/Source/C++/Core/Ap4AtomFactory.cpp:7
#27 0x582669 in AP4_AtomFactory::CreateAtomFromStream(AP4_ByteStream&, unsigned long long&, AP4_Atom*) /src/bento4/Source/C++/Core/Ap4AtomFactory.cpp:221
#28 0x5712f9 in AP4_ContainerAtom::ReadChildren(AP4_AtomFactory&, AP4_ByteStream&, unsigned long long) /src/bento4/Source/C++/Core/Ap4ContainerAtom.cpp:194
#29 0x5712f9 in AP4_ContainerAtom::AP4_ContainerAtom(unsigned int, unsigned long long, bool, AP4_ByteStream&, AP4_AtomFactory&) /src/bento4/Source/C++/Core/Ap4ContainerAtom.cpp:13
#30 0x57121e in AP4_ContainerAtom::Create(unsigned int, unsigned long long, bool, bool, AP4_ByteStream&, AP4_AtomFactory&) /src/bento4/Source/C++/Core/Ap4ContainerAtom.cpp:88
#31 0x57b67e in AP4_AtomFactory::CreateAtomFromStream(AP4_ByteStream&, unsigned int, unsigned int, unsigned long long, AP4_Atom*) /src/bento4/Source/C++/Core/Ap4AtomFactory.cpp:7
#32 0x582669 in AP4_AtomFactory::CreateAtomFromStream(AP4_ByteStream&, unsigned long long&, AP4_Atom*) /src/bento4/Source/C++/Core/Ap4AtomFactory.cpp:221
#33 0x5712f9 in AP4_ContainerAtom::ReadChildren(AP4_AtomFactory&, AP4_ByteStream&, unsigned long long) /src/bento4/Source/C++/Core/Ap4ContainerAtom.cpp:194
#34 0x5712f9 in AP4_ContainerAtom::AP4_ContainerAtom(unsigned int, unsigned long long, bool, AP4_ByteStream&, AP4_AtomFactory&) /src/bento4/Source/C++/Core/Ap4ContainerAtom.cpp:13
#35 0x57121e in AP4_ContainerAtom::Create(unsigned int, unsigned long long, bool, bool, AP4_ByteStream&, AP4_AtomFactory&) /src/bento4/Source/C++/Core/Ap4ContainerAtom.cpp:88
```

```
#36 0x57b67e in AP4_AtomFactory::CreateAtomFromStream(AP4_ByteStream&, unsigned int, unsigned int, unsigned long long, AP4_Atom*) /src/bento4/Source/C++/Core/Ap4AtomFactory.cpp:7
#37 0x582669 in AP4_AtomFactory::CreateAtomFromStream(AP4_ByteStream&, unsigned long long, AP4_Atom*) /src/bento4/Source/C++/Core/Ap4AtomFactory.cpp:221
#38 0x5712f9 in AP4_ContainerAtom::ReadChildren(AP4_AtomFactory&, AP4_ByteStream&, unsigned long long) /src/bento4/Source/C++/Core/Ap4ContainerAtom.cpp:194
#39 0x5712f9 in AP4_ContainerAtom::AP4_ContainerAtom(unsigned int, unsigned long long, bool, AP4_ByteStream&, AP4_AtomFactory&) /src/bento4/Source/C++/Core/Ap4ContainerAtom.cpp:13
#40 0x46d252 in AP4_TrakAtom::AP4_TrakAtom(unsigned int, AP4_ByteStream&, AP4_AtomFactory&) /src/bento4/Source/C++/Core/Ap4TrakAtom.cpp:165
#41 0x57de8a in AP4_TrakAtom::Create(unsigned int, AP4_ByteStream&, AP4_AtomFactory&) /src/bento4/Source/C++/Core/Ap4TrakAtom.h:58
#42 0x57de8a in AP4_AtomFactory::CreateAtomFromStream(AP4_ByteStream&, unsigned int, unsigned int, unsigned long long, AP4_Atom*) /src/bento4/Source/C++/Core/Ap4AtomFactory.cpp:3
#43 0x582669 in AP4_AtomFactory::CreateAtomFromStream(AP4_ByteStream&, unsigned long long, AP4_Atom*) /src/bento4/Source/C++/Core/Ap4AtomFactory.cpp:221
#44 0x5712f9 in AP4_ContainerAtom::ReadChildren(AP4_AtomFactory&, AP4_ByteStream&, unsigned long long) /src/bento4/Source/C++/Core/Ap4ContainerAtom.cpp:194
#45 0x5712f9 in AP4_ContainerAtom::AP4_ContainerAtom(unsigned int, unsigned long long, bool, AP4_ByteStream&, AP4_AtomFactory&) /src/bento4/Source/C++/Core/Ap4ContainerAtom.cpp:13
#46 0x4fa8dc in AP4_MoovAtom::AP4_MoovAtom(unsigned int, AP4_ByteStream&, AP4_AtomFactory&) /src/bento4/Source/C++/Core/Ap4MoovAtom.cpp:80
#47 0x57ba99 in AP4_MoovAtom::Create(unsigned int, AP4_ByteStream&, AP4_AtomFactory&) /src/bento4/Source/C++/Core/Ap4MoovAtom.h:56
#48 0x57ba99 in AP4_AtomFactory::CreateAtomFromStream(AP4_ByteStream&, unsigned int, unsigned int, unsigned long long, AP4_Atom*) /src/bento4/Source/C++/Core/Ap4AtomFactory.cpp:3
#49 0x58185d in AP4_AtomFactory::CreateAtomFromStream(AP4_ByteStream&, unsigned long long, AP4_Atom*) /src/bento4/Source/C++/Core/Ap4AtomFactory.cpp:221
#50 0x58185d in AP4_AtomFactory::CreateAtomFromStream(AP4_ByteStream&, AP4_Atom*) /src/bento4/Source/C++/Core/Ap4AtomFactory.cpp:151
#51 0x5002c7 in AP4_File::ParseStream(AP4_ByteStream&, AP4_AtomFactory&, bool) /src/bento4/Source/C++/Core/Ap4File.cpp:104
#52 0x5002c7 in AP4_File::AP4_File(AP4_ByteStream&, bool) /src/bento4/Source/C++/Core/Ap4File.cpp:78
#53 0x43ec52 in main /src/bento4/Source/C++/Apps/Mp42Aac/Mp42Aac.cpp:250
#54 0x7f7ea76dd82f in __libc_start_main (/lib/x86_64-linux-gnu/libc.so.6+0x2082f)
#55 0x442c18 in _start (/src/afbuild/installed/bin/mp42aac+0x442c18)
```

0x6040000de7c is located 0 bytes to the right of 44-byte region [0x6040000de50,0x6040000de7c)

allocated by thread T0 here:

```
#0 0x7f7ea80b86b2 in operator new[](unsigned long) (/usr/lib/x86_64-linux-gnu/libasan.so.2+0x996b2)
#1 0x5071d5 in AP4_DataBuffer::ReallocateBuffer(unsigned int) /src/bento4/Source/C++/Core/Ap4DataBuffer.cpp:210
#2 0x5071d5 in AP4_DataBuffer::SetBufferSize(unsigned int) /src/bento4/Source/C++/Core/Ap4DataBuffer.cpp:136
```

SUMMARY: AddressSanitizer: heap-buffer-overflow /src/bento4/Source/C++/Core/Ap4Utils.cpp:548 AP4_BitReader::SkipBits(unsigned int)

Shadow bytes around the buggy address:

```
0x0c087fff9b70: fa fa fa fa fa fa fa fa fa fa fa fa fa fa fa fa
0x0c087fff9b80: fa fa fa fa fa fa fa fa fa fa fa fa fa fa fa fa
0x0c087fff9b90: fa fa fa fa fa fa fa fa fa fa fa fa fa fa fa fa
0x0c087fff9ba0: fa fa fa fa fa fa fa fa fa fa fa fa fa fa fa fa
0x0c087fff9bb0: fa fa fa fa fa fa fa fa fa fa fa fa fa fa fa fa
=>0x0c087fff9bc0: fa fa fa fa fa fa fa fa fa fa 00 00 00 00 00 04
0x0c087fff9bd0: fa fa 00 00 00 00 03 fa fa 00 00 00 00 00 03
0x0c087fff9be0: fa fa 00 00 00 00 00 fa fa 00 00 00 00 00 02
0x0c087fff9bf0: fa fa 00 00 00 00 00 00 fa fa 00 00 00 00 00
0x0c087fff9c00: fa fa fa fa fa fa fa fa fa fa fa fa fa fa fa fa
0x0c087fff9c10: fa fa fa fa fa fa fa fa fa fa fa fa fa fa fa fa
```

Shadow byte legend (one shadow byte represents 8 application bytes):

Addressable:	00
Partially addressable:	01 02 03 04 05 06 07
Heap left redzone:	fa
Heap right redzone:	fb
Freed heap region:	fd
Stack left redzone:	f1
Stack mid redzone:	f2
Stack right redzone:	f3
Stack partial redzone:	f4
Stack after return:	f5
Stack use after scope:	f8
Global redzone:	f9
Global init order:	f6
Poisoned by user:	f7
Container overflow:	fc
Array cookie:	ac
Intra object redzone:	bb
ASan internal:	fe

==26617==ABORTING

from fuzz project pwd-bento4-mp42aac-00
crash name AP4_BitReader::SkipBits@Ap4Utils.cpp-548__heap-buffer-overflow
Auto-generated by pyspider at 2019-07-16 17:39:41

please send email to teamserious360@gmail.com if you have any questions.

input

input

(2) AP4_Dec3Atom::AP4_Dec3Atom@Ap4Dec3Atom.cpp-97__heap-buffer-overflow

description

An issue was discovered in bento4 1.5.1.0, There is a/an heap-buffer-overflow in function AP4_Dec3Atom::AP4_Dec3Atom at Ap4Dec3Atom.cpp-97

commandline

mp42aac @@ a.aac

source

```
93     m_SubStreams[i].acmod    = (payload[1]>>1) & 0x7;
94     m_SubStreams[i].lfeon    = (payload[1]  ) & 0x1;
95     m_SubStreams[i].num_dep_sub = (payload[2]>>1) & 0xF;
96     if (m_SubStreams[i].num_dep_sub) {
97         m_SubStreams[i].chan_loc = (payload[2]<<7 | payload[3]) & 0x1F;
98         payload    += 4;
99         payload_size -= 4;
100     } else {
```

```
101 m_SubStreams[i].chan_loc = 0;
102 payload += 3;
```

bug report

```
=====
==858==ERROR: AddressSanitizer: heap-buffer-overflow on address 0x60200000eeff at pc 0x000000673435 bp 0x7ffdd9983710 sp 0x7ffdd9983700
READ of size 1 at 0x60200000eeff thread T0
#0 0x673434 in AP4_Dec3Atom::AP4_Dec3Atom(unsigned int, unsigned char const*) /src/bento4/Source/C++/Core/AP4Dec3Atom.cpp:97
#1 0x673ac8 in AP4_Dec3Atom::Create(unsigned int, AP4_ByteStream&) /src/bento4/Source/C++/Core/AP4Dec3Atom.cpp:56
#2 0x57ce5f in AP4_AtomFactory::CreateAtomFromStream(AP4_ByteStream&, unsigned int, unsigned int, unsigned long long, AP4_Atom*&) /src/bento4/Source/C++/Core/AP4AtomFactory.cpp:71
#3 0x582669 in AP4_AtomFactory::CreateAtomFromStream(AP4_ByteStream&, unsigned long long&, AP4_Atom*&) /src/bento4/Source/C++/Core/AP4AtomFactory.cpp:221
#4 0x5735f8 in AP4_ContainerAtom::ReadChildren(AP4_AtomFactory&, AP4_ByteStream&, unsigned long long) /src/bento4/Source/C++/Core/AP4ContainerAtom.cpp:194
#5 0x521289 in AP4_SampleEntry::Read(AP4_ByteStream&, AP4_AtomFactory&) /src/bento4/Source/C++/Core/AP4SampleEntry.cpp:115
#6 0x521289 in AP4_AudioSampleEntry::AP4_AudioSampleEntry(unsigned int, unsigned int, AP4_ByteStream&, AP4_AtomFactory&) /src/bento4/Source/C++/Core/AP4SampleEntry.cpp:420
#7 0x4e2d5d in AP4_EncaSampleEntry::AP4_EncaSampleEntry(unsigned int, AP4_ByteStream&, AP4_AtomFactory&) /src/bento4/Source/C++/Core/AP4Protection.cpp:74
#8 0x57c570 in AP4_AtomFactory::CreateAtomFromStream(AP4_ByteStream&, unsigned int, unsigned int, unsigned long long, AP4_Atom*&) /src/bento4/Source/C++/Core/AP4AtomFactory.cpp:28
#9 0x582669 in AP4_AtomFactory::CreateAtomFromStream(AP4_ByteStream&, unsigned long long&, AP4_Atom*&) /src/bento4/Source/C++/Core/AP4AtomFactory.cpp:221
#10 0x53034e in AP4_StsdAtom::AP4_StsdAtom(unsigned int, unsigned char, unsigned int, AP4_ByteStream&, AP4_AtomFactory&) /src/bento4/Source/C++/Core/AP4StsdAtom.cpp:181
#11 0x532124 in AP4_StsdAtom::Create(unsigned int, AP4_ByteStream&, AP4_AtomFactory&) /src/bento4/Source/C++/Core/AP4StsdAtom.cpp:57
#12 0x57e3fb in AP4_AtomFactory::CreateAtomFromStream(AP4_ByteStream&, unsigned int, unsigned int, unsigned long long, AP4_Atom*&) /src/bento4/Source/C++/Core/AP4AtomFactory.cpp:4
#13 0x58185d in AP4_AtomFactory::CreateAtomFromStream(AP4_ByteStream&, unsigned long long&, AP4_Atom*&) /src/bento4/Source/C++/Core/AP4AtomFactory.cpp:221
#14 0x58185d in AP4_AtomFactory::CreateAtomFromStream(AP4_ByteStream&, AP4_Atom*&) /src/bento4/Source/C++/Core/AP4AtomFactory.cpp:151
#15 0x5002c7 in AP4_File::ParseStream(AP4_ByteStream&, AP4_AtomFactory&, bool) /src/bento4/Source/C++/Core/AP4File.cpp:104
#16 0x5002c7 in AP4_File::AP4_File(AP4_ByteStream&, bool) /src/bento4/Source/C++/Core/AP4File.cpp:78
#17 0x43ec52 in main /src/bento4/Source/C++/Apps/Mp42Aac/Mp42Aac.cpp:250
#18 0x7f83e4c7182f in _libc_start_main (/lib/x86_64-linux-gnu/libc.so.6+0x2082f)
#19 0x442c18 in _start (/src/af1build/installed/bin/mp42aac+0x442c18)

0x60200000eeff is located 0 bytes to the right of 15-byte region [0x60200000eef0,0x60200000eeff)
allocated by thread T0 here:
#0 0x7f83e564c602 in operator new[](unsigned long) (/usr/lib/x86_64-linux-gnu/libasan.so.2+0x996b2)
#1 0x506326 in AP4_DataBuffer::AP4_DataBuffer(unsigned int) /src/bento4/Source/C++/Core/AP4DataBuffer.cpp:55
#2 0xe (<unknown module>)

SUMMARY: AddressSanitizer: heap-buffer-overflow /src/bento4/Source/C++/Core/AP4Dec3Atom.cpp:97 AP4_Dec3Atom::AP4_Dec3Atom(unsigned int, unsigned char const*)
Shadow bytes around the buggy address:
 0x0c047fff9d00: fa fa fa fa fa fa fa fa fa fa fa fa fa fa fa fa
 0x0c047fff9d08: fa fa fa fa fa fa fa fa fa fa fa fa fa fa fa fa
 0x0c047fff9da0: fa fa fa fa fa fa fa fa fa fa fa fa fa fa fa fa
 0x0c047fff9d00: fa fa fa fa fa fa fa fa fa fa fa fa fa fa fa fa
 0x0c047fff9dc0: fa fa fa fa fa fa fa fa fa fa fa fa fa fa fa fa
->0x0c047fff9dd0: fa fa fa fa fa fa fa fa fa fa 00 07 fa fa 00[07]
 0x0c047fff9de0: fa fa 00 fa fa fa 01 fa fa fa fd fa fa 04 fa
 0x0c047fff9df0: fa fa 00 00 fa fa 00 00 fa fa 00 00 fa fa 00 00
 0x0c047fff9e00: fa fa fa fa fa fa fa fa fa fa fa fa fa fa fa fa
 0x0c047fff9e10: fa fa fa fa fa fa fa fa fa fa fa fa fa fa fa fa
 0x0c047fff9e20: fa fa fa fa fa fa fa fa fa fa fa fa fa fa fa fa
Shadow byte legend (one shadow byte represents 8 application bytes):
Addressable: 00
Partially addressable: 01 02 03 04 05 06 07
Heap left redzone: fa
Heap right redzone: fb
Freed heap region: fd
Stack left redzone: f1
Stack mid redzone: f2
Stack right redzone: f3
Stack partial redzone: f4
Stack after return: f5
Stack use after scope: f8
Global redzone: f9
Global init order: f6
Poisoned by user: f7
Container overflow: fc
Array cookie: ac
Intra object redzone: bb
ASan internal: fe
==858==ABORTING
```

others


from fuzz project pwd-bento4-mp42aac-00
crash name AP4_Dec3Atom::AP4_Dec3Atom@AP4Dec3Atom.cpp-97___heap-buffer-overflow
Auto-generated by pypsider at 2019-07-17 17:12:37

please send email to teamseri0us360@gmail.com if you have any questions.

input

input

 barbibilu self-assigned this on Aug 25, 2019

 barbibilu added the **fuzzing** label on Aug 25, 2019

Assignees

 barbibilu

Labels

fuzzing

Projects

None yet
Milestone
No milestone
Development
No branches or pull requests
2 participants
