

## net.socket:connect() - leaks memory on DNS lookup fail #234

 Closed

Toshik opened this issue on 20 Feb 2015 · 6 comments

Toshik commented on 20 Feb 2015

NodeMCU 0.9.5 build 20150213 powered by Lua 5.1.4

net.socket.connect() leaks memory when called by hostname and DNS query failed. Base leak is about 240 bytes per call.

Test case:

```
function TestDNSLeak()  
c=net.createConnection(net.TCP, 0)  
c:connect(80, "bad-name.tld")  
tmr.alarm(1, 3000, 0, function() print("hack socket close, MEM: "..node.heap()) c:close() end) -- socket timeout hack  
print("MEM: "..node.heap())  
  
end
```

Now run TestDNSLeak() every 5 seconds (do it not too fast, to get timer executed):

```
TestDNSLeak()  
MEM: 20288  
> DNS retry 1!  
DNS retry 2!  
DNS retry 3!  
DNS retry 4!  
DNS Fail!  
hack socket close, MEM: 20840  
TestDNSLeak()  
MEM: 19952  
> DNS retry 1!  
DNS retry 2!  
DNS retry 3!  
DNS retry 4!  
DNS Fail!  
hack socket close, MEM: 20608  
TestDNSLeak()  
MEM: 19672  
> DNS retry 1!  
DNS retry 2!  
DNS retry 3!  
DNS retry 4!  
DNS Fail!  
hack socket close, MEM: 20336  
TestDNSLeak()  
MEM: 19456  
> DNS retry 1!  
DNS retry 2!  
DNS retry 3!  
DNS retry 4!  
DNS Fail!  
hack socket close, MEM: 20160  
TestDNSLeak()  
MEM: 19208  
> DNS retry 1!  
DNS retry 2!  
DNS retry 3!  
DNS retry 4!  
DNS Fail!  
hack socket close, MEM: 19936  
TestDNSLeak()  
MEM: 19008  
> DNS retry 1!  
DNS retry 2!  
DNS retry 3!  
DNS retry 4!  
DNS Fail!  
hack socket close, MEM: 19704
```

Assignees

No one assigned

Labels

None yet

Projects

None yet

Milestone






No milestone

Linked pull requests

Successfully merging a pull request may close this issue.

None yet

5 participants



dvv commented on 20 Feb 2015

Contributor ...

It's not necessarily a leak as Lua performs garbage collection lazily.  
Try calling collectgarbage("collect") before printing heap amount first. TIA

Toshik commented on 20 Feb 2015

Author ...

@dvv I have ran into that issue - my DNS was dead and ESP drains all memory...

Anyway, even with garbage collector same issue:

```
function TestDNSLeak()  
c=net.createConnection(net.TCP, 0)  
c:connect(80, "bad-name.tld")  
tmr.alarm(1, 3000, 0, function() collectgarbage("collect") print("hack socket close, MEM: "..node.heap()) c:close() end)  
print("MEM: "..node.heap())  
  
end
```

```
> TestDNSLeak()  
MEM: 20072  
> DNS retry 1!  
DNS retry 2!  
DNS retry 3!  
DNS retry 4!  
DNS Fail!  
hack socket close, MEM: 20696  
TestDNSLeak()  
MEM: 19736  
> DNS retry 1!  
DNS retry 2!  
DNS retry 3!  
DNS retry 4!  
DNS Fail!  
> hack socket close, MEM: 20464  
TestDNSLeak()  
MEM: 19488  
> DNS retry 1!  
DNS retry 2!  
DNS retry 3!  
DNS retry 4!  
DNS Fail!  
hack socket close, MEM: 20184  
TestDNSLeak()  
MEM: 19264  
> DNS retry 1!  
DNS retry 2!  
DNS retry 3!  
DNS retry 4!  
DNS Fail!  
hack socket close, MEM: 20000  
TestDNSLeak()  
MEM: 19072  
> DNS retry 1!  
DNS retry 2!  
DNS retry 3!  
DNS retry 4!  
DNS Fail!  
hack socket close, MEM: 19808
```

mikewen commented on 21 Feb 2015

...

This is related:  
[#189](#)

If able to specify DNS servers, it would be helpful.  
Google's DNS servers are much better than my local ISP's.

On Fri, Feb 20, 2015 at 4:59 AM, Toshik [notifications@github.com](mailto:notifications@github.com) wrote:

@dvv <https://github.com/dvv> I have ran into that issue - my DNS was dead and ESP drains all memory...

Anyway, even with garbage collector same issue:

```
function TestDNSLeak()  
c=net.createConnection(net.TCP, 0)  
c:connect(80, "bad-name.tld")  
tmr.alarm(1, 3000, 0, function() collectgarbage("collect") print("hack socket close, MEM: "..node.heap()) c:close() end) -- socket  
timeout hack  
print("MEM: "..node.heap())  
  
end
```

```
TestDNSLeak()  
MEM: 20072  
DNS retry 1!  
DNS retry 2!  
DNS retry 3!  
DNS retry 4!  
DNS Fail!  
hack socket close, MEM: 20696  
TestDNSLeak()  
MEM: 19736  
DNS retry 1!  
DNS retry 2!  
DNS retry 3!  
DNS retry 4!  
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TestDNSLeak()  
MEM: 19264  
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DNS retry 3!  
DNS retry 4!  
DNS Fail!  
hack socket close, MEM: 19808
```

—  
Reply to this email directly or view it on GitHub  
[#234 \(comment\)](#)

Suxsem commented on 21 Feb 2015

...

I can reproduce this

ghost commented on 11 Mar 2015

Collaborator ...

try newest release [latest](#)

nodemcu closed this in [d28a2c9](#) on 18 Mar 2015

UserXYZ mentioned this issue on 8 Oct 2015

dev build still having DNS Fail issues #682

Closed

UserXYZ commented on 9 Oct 2015

...

This problem is still relevant, and I opened a new issue about it since I can't reopen this one...basically, the test used is the same like this here, and behaviour goes from full restart immediately, after a few dns retry/fail attempts or after some undefined time, like 10 minutes or more...