

Ruby - Feature #14268

[PATCH] net/protocol: optimize large read case

01/02/2018 08:53 AM - normalperson (Eric Wong)

<div>Status:Closed</div> <div>Priority:Normal</div> <div>Assignee:naruse (Yui NARUSE)</div> <div>Target version:</div>	
<div>Description</div> <div>Any comment? Will commit in a few days if none.</div> <div>net/protocol: optimize large read case</div> <div>There are several places where rbuf_consume is called with @rbuf.size as its length arg; simplify that case by avoiding the slow String#slice! operation in favor of a lightweight replacement.</div> <div>The following script exhibits reduced memory usage and runtimes using the time(1) command:</div> <div>2.9s => 2.6s 70MB => 12 MB</div> <div>-----</div> <div>require 'net/http' require 'digest/md5' Thread.abort_on_exception = true s = TCPServer.new('127.0.0.1', 0) len = 1024 * 1024 * 1024 th = Thread.new do c = s.accept c.readpartial(16384) c.write("HTTP/1.0 200 OK\r\nContent-Length: #{len}\r\n\r\n") IO.copy_stream('/dev/zero', c, len) c.close end addr = s.addr Net::HTTP.start(addr[3], addr[1]) do http http.request_get('/') do res dig = Digest::MD5.new res.read_body { buf dig.update(buf) # String#clear is important to reduce malloc overhead, # but most Ruby programmers don't do this :< buf.clear } puts dig.hexdigest end end -----</div> <div>* lib/net/protocol (rbuf_consume): optimize for @rbuf.size == len</div>	

Associated revisions

Revision d9beb7690fb88734de52c67ab030cf0f864a2762 - 01/05/2018 02:22 AM - Eric Wong

net/protocol: optimize large read case

There are several places where rbuf_consume is called with @rbuf.size as its length arg; simplify that case by avoiding the slow String#slice! operation in favor of a lightweight

replacement.

The following script exhibits reduced memory usage and runtimes using the `time(1)` command:

```
2.9s => 2.6s
70MB => 12 MB
```

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require 'net/http'
require 'digest/md5'
Thread.abort_on_exception = true
s = TCPServer.new('127.0.0.1', 0)
len = 1024 * 1024 * 1024
th = Thread.new do
  c = s.accept
  c.readpartial(16384)
  c.write("HTTP/1.0 200 OK\r\nContent-Length: #{len}\r\n\r\n")
  IO.copy_stream('/dev/zero', c, len)
  c.close
end
```

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addr = s.addr
Net::HTTP.start(addr[3], addr[1]) do |http|
  http.request_get('/') do |res|
    dig = Digest::MD5.new
    res.read_body { |buf|
      dig.update(buf)
    }
    # String#clear is important to reduce malloc overhead,
    # but most Ruby programmers don't do this :<
    buf.clear
  }
  puts dig.hexdigest
end
end
```

- `lib/net/protocol (rbuf_consume)`: optimize for `@rbuf.size == len`
[Feature #14268]

git-svn-id: [svn+ssh://ci.ruby-lang.org/ruby/trunk@61602](https://ci.ruby-lang.org/ruby/trunk@61602) b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision d9beb769 - 01/05/2018 02:22 AM - Eric Wong

net/protocol: optimize large read case

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- lib/net/protocol (rbuf_consume): optimize for @rbuf.size == len
[Feature #14268]

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/trunk@61602 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

History

#1 - 01/05/2018 02:22 AM - Anonymous

- Status changed from Open to Closed

Applied in changeset trunk|r61602.

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buf.clear

```

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}
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end
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- lib/net/protocol (rbuf_consume): optimize for @rbuf.size == len
[Feature [#14268](#)]

Files

0001-net-protocol-optimize-large-read-case.patch	1.74 KB	01/02/2018	normalperson (Eric Wong)
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