

Ruby - Bug #15187

IPv6 x-forwarded-host results in "bad URI" error

10/01/2018 01:45 PM - kwinters (Ken Winters)

<b>Status:</b>	Closed	
<b>Priority:</b>	Normal	
<b>Assignee:</b>		
<b>Target version:</b>		
<b>ruby -v:</b>		<b>Backport:</b> 2.3: UNKNOWN, 2.4: UNKNOWN, 2.5: UNKNOWN

**Description**

A request that normally works with IPv4 is failing for IPv6. The webrick server is running behind Apache2, which is setting the x-forwarded-\* headers.

```
$ curl -k https://[fd20:8b1e:b255:8154:250:56ff:fea8:4d84]/something
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0//EN">
<HTML>
  <HEAD><TITLE>Bad Request</TITLE></HEAD>
  <BODY>
    <H1>Bad Request</H1>
    bad URI `/api/v3/versions'.
    <HR>
    <ADDRESS>
      WEBrick/1.3.1 (Ruby/2.3.3/2016-11-21) at
      DCU-ADM1-178:4567
    </ADDRESS>
  </BODY>
</HTML>
```

I added some logging to httprequest.rb to output the headers:  
(fails) x-forwarded-host: [fd20:8b1e:b255:8154:250:56ff:fea8:4d84]  
(works) x-forwarded-host: 10.224.3.178

The bug appears to be in here:

```
def setup_forwarded_info
  if @forwarded_server = self["x-forwarded-server"]
    @forwarded_server = @forwarded_server.split(",", 2).first
  end
  @forwarded_proto = self["x-forwarded-proto"]
  if host_port = self["x-forwarded-host"]
    host_port = host_port.split(",", 2).first
    @forwarded_host, tmp = host_port.split(":", 2) # HERE
    @forwarded_port = (tmp || (@forwarded_proto == "https" ? 443 : 80)).to_i
  end
  if addrs = self["x-forwarded-for"]
    addrs = addrs.split(",").collect(&:strip)
    addrs.reject!{|ip| PrivateNetworkRegexp =~ ip }
    @forwarded_for = addrs.first
  end
end
```

Changing it to remove the split avoids the bug, but this simpler implementation doesn't support a port.

```
if host_port = self["x-forwarded-host"]
  host_port = host_port.split(",", 2).first
  @forwarded_host = host_port # Dropped the split on :
  @forwarded_port = @forwarded_proto == "https" ? 443 : 80
end
```

Originally filed as <https://github.com/ruby/webrick/issues/11> before the bug submission link was updated.

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## History

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### #1 - 08/27/2019 05:24 AM - jeremyevans0 (Jeremy Evans)

I've submitted a pull request to fix this: <https://github.com/ruby/webrick/pull/26>

### #2 - 10/17/2019 09:58 PM - jeremyevans0 (Jeremy Evans)

- *Status changed from Open to Closed*