

Ruby - Feature #3711

IPAddr must not make DNS lookups via IPSocket.getaddress

08/18/2010 10:07 PM - pk (Philipp Kempgen)

Status:	Closed	
Priority:	Normal	
Assignee:	knu (Akinori MUSHYA)	
Target version:	2.6	
Description <pre>=begin class MustNotCallError < NotImplementedError ; end class IpAddrNoResolvTestCase < Test::Unit::TestCase def setup() class << IPSocket alias original_getaddress getaddress def getaddress(host) # DNS lookups are slow and totally unnecessary for IP addresses raise MustNotCallError.new('IPAddr.new() must not call IPSocket.getaddress()!') end end end def test_ipaddr_must_not_resolve_valid_ipv4_address assert_nothing_raised { IPAddr.new('1.2.3.4', Socket::AF_INET) } end def test_ipaddr_must_not_resolve_invalid_ipv4_style_address assert_raise(ArgumentError) { IPAddr.new('1.2.3.400', Socket::AF_INET) } end def test_ipaddr_must_not_resolve_valid_ipv6_address assert_nothing_raised { IPAddr.new(':::', Socket::AF_INET6) } end def test_ipaddr_must_not_resolve_invalid_ipv6_style_address assert_raise(ArgumentError) { IPAddr.new('::1::', Socket::AF_INET6) } end end end =end</pre>		

History

#1 - 08/19/2010 06:46 AM - nobu (Nobuyoshi Nakada)

=begin
Hi,

At Wed, 18 Aug 2010 22:07:42 +0900,
Philipp Kempgen wrote in [\[ruby-core:31756\]](#):

DNS lookups are slow and totally unnecessary for IP addresses

raise MustNotCallError.new('IPAddr.new() must not call IPSocket.getaddress()!')

IPAddr.new already does not call getaddress for valid IPv4
addresses if IPv6 is not available. Seems it should be enabled
even if IPv6 is available, since there is valid_v6? method
already.

diff --git a/lib/ipaddr.rb b/lib/ipaddr.rb
index 226a996..8d3ee00 100644
--- a/lib/ipaddr.rb
+++ b/lib/ipaddr.rb
@@ -17,45 +17,71 @@

require 'socket'

```

-unless Socket.const_defined? "AF_INET6"
+have_inet4 = Socket.const_defined? "AF_INET"
+have_inet6 = Socket.const_defined? "AF_INET6"
+
+unless have_inet6
class Socket < BasicSocket
AF_INET6 = Object.new
end
+end

```

```

+if have_inet4
class << IPSocket
def valid_v4?(addr)
if /\A(\d{1,3}).(\d{1,3}).(\d{1,3}).(\d{1,3})\Z/ =~ addr

```

- [REDACTED]

- [REDACTED]

```

end
return false

```

```

end
• end
+end

```

```

+if have_inet6

```

- class << IPSocket

```

def valid_v6?(addr)

```

- [REDACTED]

```

# IPv6 (normal)
return true if /\A[\dA-Fa-f]{1,4}(:[\dA-Fa-f]{1,4})*\Z/ =~ addr
return true if /\A[\dA-Fa-f]{1,4}(:[\dA-Fa-f]{1,4})*::([\dA-Fa-f]{1,4}(:[\dA-Fa-f]{1,4})*)?\Z/ =~ addr
return true if /\A::([\dA-Fa-f]{1,4}(:[\dA-Fa-f]{1,4})*)?\Z/ =~ addr
# IPv6 (IPv4 compat)

```

- [REDACTED]

- [REDACTED]

```

return true if /\A[\dA-Fa-f]{1,4}(:[\dA-Fa-f]{1,4})*::([\dA-Fa-f]{1,4}(:[\dA-Fa-f]{1,4})*)?\Z/ =~ addr &&
valid_v4?('$')

```

- [REDACTED]

- [REDACTED]

```

false

```

```

end
• end
+else
• class << IPSocket
• def valid_v6?(addr)

```

- [REDACTED]

```

• end
• end
+end

```

```

+if have_inet6

```

- class << IPSocket

```

def valid?(addr)

```

- [REDACTED]

- [REDACTED]

```
end
• end
+else
• class << IPSocket
• alias valid? valid_v4?
• end
+end

• alias getaddress_orig getaddress
• def getaddress(s)
```

- [REDACTED]

- [REDACTED]

- [REDACTED]

- [REDACTED]

- [REDACTED]

- [REDACTED]

- [REDACTED]

```
+class << IPSocket
```

- alias getaddress_orig getaddress
- def getaddress(s)
- if v = valid?(s)

- [REDACTED]

- elsif v == false && /\A[-A-Za-z\d.]+\Z/ =~ s

- [REDACTED]

- else

- [REDACTED]

```
end
end
end
```

```
--
Nobu Nakada
```

```
=end
```

#2 - 08/27/2010 12:57 PM - shyouhei (Shyouhei Urabe)

- Status changed from Open to Feedback

```
=begin
```

```
=end
```

#3 - 03/18/2012 05:59 PM - nahi (Hiroshi Nakamura)

- Description updated

- Assignee set to knu (Akinori MUSHU)

#4 - 11/20/2012 09:20 PM - mame (Yusuke Endoh)

- *Target version set to 2.6*

#5 - 10/23/2017 01:12 AM - knu (Akinori MUSHHA)

A few years later IPAddr was fixed so it does not call IPSocket.getaddress.

#6 - 10/23/2017 01:12 AM - knu (Akinori MUSHHA)

- *Status changed from Feedback to Closed*