

Ruby trunk - 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 MUSHHA)
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

```

- return \$~.captures.all? {|i| i.to_i < 256}
- return \$~.captures.all? {|i| i.to_i < 256} || nil end return false end
- end +end

```

+if have_inet6

```

- class << IPSocket def valid_v6?(addr)
- s = nil # 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 # IPv6 (IPv4 compat)
- return true if /\A([\dA-Fa-f]{1,4}(:[\dA-Fa-f]{1,4})*)?/ =~ addr && valid_v4?('\$')
- return s if /\A([\dA-Fa-f]{1,4}(:[\dA-Fa-f]{1,4})?)/ =~ addr && (s = valid_v4?('\$')) != false return true if /\A([\dA-Fa-f]{1,4}(:[\dA-Fa-f]{1,4})::([\dA-Fa-f]{1,4}(:[\dA-Fa-f]{1,4})*)?)?/ =~ addr && valid_v4?('\$')
- return true if /\A::([\dA-Fa-f]{1,4}(:[\dA-Fa-f]{1,4})*)?/ =~ addr && valid_v4?('\$')

- [REDACTED]

```

false

```

```

end

```

- end
- +else

- class << IPSocket

- def valid_v6?(addr)

- [REDACTED]

- end

- end
- +end

```

+if have_inet6

```

- class << IPSocket def valid?(addr)
- valid_v4?(addr) || valid_v6?(addr)
- (s = valid_v4?(addr)) == false ? valid_v6?(addr) : s 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-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 MUSHA)

#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 MUSHA)

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

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

- Status changed from Feedback to Closed