Ruby master - Feature #10912
Add method(s) to IPAddr for determining whether an address is link local

02/27/2015 02:23 AM - postmodern (Hal Brodigan)

<table>
<thead>
<tr>
<th>Status</th>
<th>Closed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority</td>
<td>Normal</td>
</tr>
<tr>
<td>Assignee</td>
<td>knu (Akinori MUSHA)</td>
</tr>
<tr>
<td>Target version</td>
<td></td>
</tr>
</tbody>
</table>

**Description**
I was surprised to find that IPAddr has no methods for determining whether an address is a link local address (ie RFC1918 or RFC5735). This would make it easy to blacklist local IP addresses from services.

**Related issues:**
Is duplicate of Ruby master - Feature #11666: IPAddr#private?

**Closed**

**Associated revisions**

**Revision c2db917b - 10/21/2017 01:34 PM - knu (Akinori MUSHA)**
Import ipaddr 1.2.0

- Add IPAddr#prefix
- Add IPAddr#loopback?
- Add IPAddr#private? [Feature #11666]
- Add IPAddr#link_local? [Feature #10912]
- Reject invalid address mask [Bug #13399]
- Warn that IPAddr#ipv4_compat and #ipv4_compat? are deprecated [#Bug 13769]

```
git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/trunk@60270 b2dd03c8-39d4-4d8f-98ff-823fe69b080e
```

**Revision 60270 - 10/21/2017 01:34 PM - knu (Akinori MUSHA)**
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**History**

#1 - 11/27/2016 04:12 AM - knqyf263 (Teppei Fukuda)
I also want a method to determine whether an address is link-local.
There is a proposal for a fix on [https://github.com/ruby/ruby/pull/1494](https://github.com/ruby/ruby/pull/1494) .
In RFC 4291 2.4, the type of an IPv6 address is defined, as follows:

<table>
<thead>
<tr>
<th>Address type</th>
<th>Binary prefix</th>
<th>IPv6 notation</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unspecified</td>
<td>00...0 (128 bits)</td>
<td>::/128</td>
<td>2.5.2</td>
</tr>
<tr>
<td>Loopback</td>
<td>00...1 (128 bits)</td>
<td>::1/128</td>
<td>2.5.3</td>
</tr>
<tr>
<td>Multicast</td>
<td>11111111</td>
<td>FF00::/8</td>
<td>2.7</td>
</tr>
<tr>
<td>Link-Local unicast</td>
<td>1111111110</td>
<td>FE80::/10</td>
<td>2.5.6</td>
</tr>
<tr>
<td>Global Unicast</td>
<td>(everything else)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

"Private-Use" network is not defined, but the above five address types are clearly defined. These addresses are also defined in IPv4 (RFC 6890 2.2.2).

Although "unspecified" network is not clearly defined in IPv4, it can be considered as 0.0.0.0/8.

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Although "unspecified" network is not clearly defined in IPv4, it can be considered as 0.0.0.0/8.

Is it difficult to add methods to determine these networks?
If it is not good to mix IPv4 and IPv6, I think there is a way to separate method names (like ipv4_linklocal? and ipv6_linklocal?)

Applied in changeset trunk|r60270.

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Added, thanks for the suggestion.