

Foreman - Feature #1559

Templated PTR Records to support RFC2317 style classless reverse delegation

03/28/2012 09:46 AM - Andreas Rogge

Status: New	
Priority: Normal	
Assignee:	
Category:	
Target version:	
Difficulty:	Fixed in Releases:
Triaged:	Found in Releases:
Bugzilla link:	Red Hat JIRA:
Pull request:	
Description	
<p>Instead of just creating the DNS PTR by reversing the IP and appending ".in-addr.arpa" it should be possible to create custom strings with templates.</p> <p>If you only get a fraction of a /24 you can get your reverse-zone delegated as described in RFC2317. This makes crafting your PTR a special case - eventually the PTR syntax is site specific</p> <p>i.e. your network is 192.0.2.128/25 and you agree with your ISP to use RFC2317 method 1. Your ISP will add the following RRs in his Nameserver:</p> <pre>128/25.2.0.192.in-addr.arpa. IN NS your.name.server.tld 128/25.2.0.192.in-addr.arpa. IN NS your-other.name.server.tld 128.2.0.192.in-addr.arpa. IN CNAME 128.128/25.2.0.192.in-addr.arpa. 129.2.0.192.in-addr.arpa. IN CNAME 128.129/25.2.0.192.in-addr.arpa. 130.2.0.192.in-addr.arpa. IN CNAME 128.130/25.2.0.192.in-addr.arpa. [...] 255.2.0.192.in-addr.arpa. IN CNAME 255.130/25.2.0.192.in-addr.arpa.</pre> <p>Thus you will have to fill your hosts into the zone 128/25.2.0.192.in-addr.arpa. and the PTRs will have to look like</p> <pre>138.128/25.2.0.192.in-addr.arpa. IN PTR my-server.domain.tld. 254.128/25.2.0.192.in-addr.arpa. IN PTR my-other-server.domain.tld.</pre> <p>Eventually I'd suggest to allow people to add a "PTR-Template" to their subnet configuration where you have variables for the dotted quad, the reversed dotted quad and every byte of the dotted quad. A template for the above might look like "<% @ip⁴ %>.128/25.2.0.192.in-addr.arpa" and would be configured on subnet 192.0.2.128</p>	
Related issues:	
Related to Foreman - Tracker #5409: DNS Proxy Improvements	New

History

#1 - 03/15/2016 07:19 AM - Ohad Levy

- Related to Tracker #5409: DNS Proxy Improvements added

#2 - 10/20/2016 04:01 PM - Andreas Rogge

When [#17037](#) is merged this can be done finally.
I'm going to have a look how to do it and maybe come up with a patch.

#3 - 10/20/2016 04:54 PM - Andreas Rogge

I had a look at what needs to be done to implement this.

AFAICT the following changes are required:

- we need a new optional field `ptr_template` in `Subnet`
- subnet html template needs to be changed to allow to edit the ptr template
- `Subnet` needs a new function `to_arpa(ip)` that renders the ptr according to the template provided if any or otherwise just call `IPAddr.new(ip).reverse` / `IPAddr.new(ip).ip6_arpa`
- `to_arpa()` in `Net::DNS::PTR4Record#to_arpa` and `Net::DNS::PTR6Record#to_arpa` need to be patched to call

``Subnet.subnet_for(ip).to_arp(ip)`` to determine the ptr

I'm somewhat unsure when it comes to calling `Subnet.subnet_for(ip)` as the function looks rather expensive. Maybe it is better to pass down the subnet object down, but I have absolutely no idea how to do that.