Smart Proxy - Bug #5648

DHCP lease reading is done in the wrong order

05/09/2014 03:48 PM - Greg Sutcliffe

Status:	Closed		
Priority:	Normal		
Assignee:	Greg Sutcliffe		
Category:	DHCP		
Target version:	1.5.1		
Difficulty:		**Fixed in Releases:**	
Triaged:		**Found in Releases:**	1.5.0
Bugzilla link:	1107706	**Red Hat JIRA:**	
Pull request:			

Description

DHCP uses a last-lease-wins system - new leases are appended to the leases file and automatically are preferred over earlier entries. However, the proxy uses a first-lease-wins, where we discard any leases that we already have in memory when parsing the leases file.

When you have a lease file like this:

```
lease 192.168.123.58 {
  starts 5 2014/05/09 14:38:13;
  ends 5 2014/05/09 14:48:13;
  cltt 5 2014/05/09 14:38:13;
  binding state active;
  next binding state free;
  rewind binding state free;
  hardware ethernet 52:54:00:22:17:2b;
  uid "\001RT\000\"\027+";
}
lease 192.168.123.59 {
  starts 5 2014/05/09 14:39:00;
  ends 5 2014/05/09 14:49:00;
  cltt 5 2014/05/09 14:39:00;
  binding state active;
  next binding state free;
  rewind binding state free;
  hardware ethernet 52:54:00:22:17:2b;
}
lease 192.168.123.59 {
  starts 5 2014/05/09 14:39:12;
  ends 5 2014/05/09 14:49:12;
  cltt 5 2014/05/09 14:39:12;
  binding state active;
  next binding state free;
  rewind binding state free;
  hardware ethernet 52:54:00:22:17:2b;
}
```

Then the proxy would report that /dhcp/192.168.123.0/52:54:00:22:17:2b has IP 192.168.123.58 - when in actual fact it has 192.168.123.59.

We need to rewire the proxy to replace leases in memory as it parses down the file.

Related issues:

Related to Foreman - Bug #5637: DHCP conflicts triggered for non-conflicting ...	**Closed**	**05/08/2014**
Related to Smart Proxy - Bug #5739: Host deletion finds irrelevant old leases	**Closed**	**05/15/2014**

Associated revisions

Revision 2080b2eb - 05/20/2014 10:25 AM - Greg Sutcliffe

Fixes #5648 - Match the DHCP specification of last-lease-wins

History

#1 - 05/09/2014 03:52 PM - Dominic Cleal

- Status changed from Assigned to Ready For Testing

https://github.com/theforeman/smart-proxy/pull/155

#2 - 05/12/2014 08:43 AM - Dominic Cleal

- Related to Bug #5637: DHCP conflicts triggered for non-conflicting leases added

#3 - 05/15/2014 04:25 PM - Dominic Cleal

- Related to Bug #5739: Host deletion finds irrelevant old leases added

#4 - 05/19/2014 12:42 PM - Anonymous

- Target version changed from 1.8.3 to 1.8.2

#5 - 05/20/2014 10:52 AM - Anonymous

- Status changed from Ready For Testing to Closed

- % Done changed from 0 to 100

Applied in changeset 2080b2eb85162c76e0edf2e4630a0f9a3a23b494.

#6 - 06/10/2014 12:54 PM - Bryan Kearney

- Bugzilla link set to https://bugzilla.redhat.com/show_bug.cgi?id=1107706

#7 - 10/16/2014 03:54 AM - Lukas Zapletal

One comment while I am investigating some DHCP race conditions:

Although in most cases the host will have IP .59, there are cases when that's not the case and IP .58 is the correct one. We can't simply tell which one is correct, because both leases are active since the former one has UID set. Therefore, in case the system reboots into different OS that reports UID (usually Windows, can be anything with DHCP client configured this way) then IP .59 becomes invalid.

I am leaving this note here for the record, just in case somebody hits this. I have some issues with discovery (this patch applied), I am investigaing what is wrong in this case.