

## Foreman - Feature #17737

### Optionally return structured facts nested under the root fact via API, not individually

12/19/2016 09:39 AM - Leonardo Sorrentino

<b>Status:</b> New	
<b>Priority:</b> Normal	
<b>Assignee:</b>	
<b>Category:</b> API	
<b>Target version:</b>	
<b>Difficulty:</b>	<b>Fixed in Releases:</b>
<b>Triaged:</b>	<b>Found in Releases:</b>
<b>Bugzilla link:</b>	<b>Red Hat JIRA:</b>
<b>Pull request:</b>	

#### Description

I have a user with the 'viewer' role, and if I try for example:

```
curl -k -u username:password "https://localhost/api/v2/fact_values?search=name=disks" | python -mjson.tool
```

I get the following response:

```
{
  "page": 1,
  "per_page": 30,
  "results": {
    "hostA": {
      "disks": null
    },
    "hostB": {
      "disks": null
    },
    "hostC": {
      "disks": null
    },
    "hostD": {
      "disks": null
    },
    "hostE": {
      "disks": null
    },
    "hostF": {
      "disks": null
    },
    "hostG": {
      "disks": null
    }
  },
  "search": "name=disks",
  "sort": {
    "by": null,
    "order": null
  },
  "subtotal": 7,
  "total": 0
}
```

In the "results" fields, it is supposed to show the "disks" fact content, it shows a null value instead. This problem seems to be limited to structured facts only.

The field "Total" is also always 0 with non-Administrator users. If the query is from an Administrator it always returns a fixed value:

```
"total": 60232
```

Which is exactly the record count in my fact\_values table:

```
MariaDB [foremandb]> select count(*) from fact_values;
+-----+
| count(*) |
+-----+
|    60232 |
+-----+
1 row in set (0.01 sec)
```

It was working in Foreman 1.12.4, it broke after the upgrade to 1.13.2

## History

### #1 - 12/19/2016 09:43 AM - Dominic Cleal

- Category set to API

In the "results" fields, it is supposed to show the "disks" fact content, it shows a null value instead. This problem seems to be limited to structured facts only.

Structured top-level facts probably don't have a value, hence the null. Are you expecting to return facts that *start* with the keyword disk? If so you might want something like name ~ disk% to search prefixes.

It was working in Foreman 1.12.4, it broke after the upgrade to 1.13.2

Note that 1.13 stores structured facts from Puppet as structured data now so you may need to change your search query to match.

The totals is probably a different issue to this, not sure that it's related.

### #2 - 12/19/2016 11:05 AM - Leonardo Sorrentino

- Subject changed from *Wrong Total and Null values when querying structured facts via API* to *Null values when querying structured facts via API*

Dominic Cleal wrote:

In the "results" fields, it is supposed to show the "disks" fact content, it shows a null value instead. This problem seems to be limited to structured facts only.

Structured top-level facts probably don't have a value, hence the null. Are you expecting to return facts that *start* with the keyword disk? If so you might want something like name ~ disk% to search prefixes.

I was expecting the same structured data from the fact named exactly "disks", something like following output from facter:

```
{
  "disks": {
    "sda": {
      "model": "PERC H310",
      "size": "136.13 GiB",
      "size_bytes": 146163105792,
      "vendor": "DELL"
    }
  }
}
```

Now, if I change the query as you suggest, I get the following result:

```
"HostA": {
  "disks": null,
  "disks::sda": null,
  "disks::sda::size": "136.13 GiB",
  "disks::sda::size_bytes": "146163105792"
}
```





#### #4 - 01/12/2017 12:05 PM - Leonardo Sorrentino

Dominic Cleal wrote:

```
Now, if I change the query as you suggest, I get the following result:  
"HostA": {  
  "disks": null,  
  "disks::sda": null,  
  "disks::sda::size": "136.13 GiB",  
  "disks::sda::size_bytes": "146163105792"
```

Which is a slightly different structure.

Yes, this looks correct. The facts are stored separately with this notation by Foreman, they're not stored as a single hash, so the API will not return nested hashes. This method also allows individual facts to be specified.

So, as far I understand, top keys are returned as Null, and individual facts are returned with a value.

From a user point of view, IMHO, returning Null is a bit misleading and not being able to retrieve (anymore) a structured fact from its root key is a bit inconvenient. Would this be a feature request?

Also, as far I understand, changing the search operator to ~ will not just find any fact that starts with "disks", but will find all that ones containing the word "disks".

Use name ~ disks% (see <https://theforeman.org/manuals/1.13/index.html#4.1.5Searching> for more details).

As the doc states:

```
[...] For example, the search name ~ corp% will match both "corp" and "corporation"
```

This is something slightly different from what I am trying to achieve.

#### #5 - 01/13/2017 03:32 AM - Dominic Cleal

- *Tracker changed from Bug to Feature*

- *Subject changed from Null values when querying structured facts via API to Optionally return structured facts nested under the root fact via API, not individually*

- *Status changed from Feedback to New*

From a user point of view, IMHO, returning Null is a bit misleading and not being able to retrieve (anymore) a structured fact from its root key is a bit inconvenient. Would this be a feature request?

Sure, changed to a feature request.