Foreman - Bug #24640

1.17 migration causes array/hash values for parameters to turn into strings with escaped quotes

08/16/2018 01:38 PM - Tomer Brisker

<table>
<thead>
<tr>
<th>Status</th>
<th>Closed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority</td>
<td>High</td>
</tr>
<tr>
<td>Assignee</td>
<td>Tomer Brisker</td>
</tr>
<tr>
<td>Category</td>
<td>Parameters</td>
</tr>
<tr>
<td>Target version</td>
<td>1.18.2</td>
</tr>
<tr>
<td>Difficulty</td>
<td></td>
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**Pull request:**
- https://github.com/theforeman/foreman/pull/5990
- https://github.com/theforeman/foreman/pull/5977
- https://github.com/theforeman/foreman/pull/5956
- https://github.com/theforeman/foreman/pull/5998
- https://github.com/theforeman/foreman/pull/5995

<table>
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<th>Triaged</th>
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<tbody>
<tr>
<td>Bugzilla link</td>
<td>1618378</td>
</tr>
</tbody>
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| Fixed in Releases | 1.17.4, 1.18.2, 1.19.0 |
| Found in Releases |                  |

**Description**

Looks like an issue in db/migrate/20170112175131_migrate_template_to_parameters_macros.rb causes any such lookupkeys/lookupvalues to turn their values to strings.

Since the values are saved using update_attribute, callbacks aren't executed meaning cast_default_value is not called and the value remains a string.

For example:

```ruby
#<VariableLookupKey:0x0000000015b50738
  id: 21532,
  key: "zdcaz",
  created_at: Thu, 16 Aug 2018 13:01:56 UTC +00:00,
  updated_at: Thu, 16 Aug 2018 13:01:56 UTC +00:00,
  puppetclass_id: 5,
  default_value: ["a", "b"],
  path: nil,
  description: "",
  validator_type: "",
  validator_rule: nil,
  key_type: "array",
  override: false,
  required: false,
  merge_overrides: false,
  avoid_duplicates: false,
  omit: nil,
  type: "VariableLookupKey",
  merge_default: false,
  hidden_value: false>

[152] pry(main)> k.default_value = convert(k.default_value.to_s)
=> "["a", "b"]"
```

As a workaround, it may be possible to iterate over all Lookupkeys and values and save them all again to ensure casting is called from foreman-rake console (please take care to backup your database before running this):
Related issues:
- Related to Foreman - Feature #16740: Host parameters should be available in templates using some macro added
- Related to Foreman - Bug #23581: Upgrade to Foreman 1.17 converts YAML to JSON causing all LookupKey default values and LookupValue values to be saved as strings, because it updated the attributes without calling callbacks, causing cast_default_value or cast_value callbacks to be ignored. This causes any values not of string type to break.
- Has duplicate Foreman - Bug #23809: Unable to save overridden Array class smart parameters added

Associated revisions
Revision e719d906 - 08/20/2018 02:41 PM - Tomer Brisker
Fixes #24640 - Cast all lookup keys and values (#5956)
- Fixes #24640 - Cast all lookup keys and values

db/migrate/20170112175131_migrate_template_to_parameters.macros.rb
caused all LookupKey default values and LookupValue values to be saved as strings, because it updated the attributes without calling callbacks, causing cast_default_value or cast_value callbacks to be ignored. This causes any values not of string type to break.

Revision 705d8644 - 08/28/2018 06:08 AM - Tomer Brisker
Refs #24640 - Cast omitted default with merge_overrides

In case the default value is omitted and the merge_override option is selected, the previous version of this migration didn't cast the default leading to a failure when merging overrides. Error message was also improved to be clearer and less frightening than a stack trace.

History
#1 - 08/16/2018 01:41 PM - Tomer Brisker
- Related to Feature #16740: Host parameters should be available in templates using some macro added

#2 - 08/16/2018 01:43 PM - Tomer Brisker
- Has duplicate Bug #23809: Unable to save overridden Array class smart parameters added

#3 - 08/16/2018 01:55 PM - The Foreman Bot
- Status changed from New to Ready For Testing
- Pull request https://github.com/theforeman/foreman/pull/5956 added

#4 - 08/16/2018 01:59 PM - Tomer Brisker
- Assignee changed from Ori Rabin to Tomer Brisker

#5 - 08/16/2018 02:00 PM - Tomer Brisker
- Bugzilla link set to 1618378

#6 - 08/20/2018 02:42 PM - Marek Hulán
- Fixed in Releases 1.20.0 added

#7 - 08/20/2018 02:46 PM - Tomer Brisker
- Fixed in Releases 1.19.0 added

#8 - 08/20/2018 03:01 PM - Tomer Brisker
- Status changed from Ready For Testing to Closed

Applied in changeset e719d906764d500f862803b762bb1da8a506fd0d.

#9 - 08/22/2018 10:15 AM - The Foreman Bot
- Pull request https://github.com/theforeman/foreman/pull/5977 added

#10 - 08/23/2018 01:36 PM - Daniel Helgenberger
- File Screenshot from 2018-08-23 15-35-22.png added

Even after the migration, I still have issues with some deep merges. 1.16.2 does render this override as expected:

```ruby
mb_linux::cloudflared:  
  ensure: present  
  settings:  
    no-tls-verify: true  
    no-chunked-encoding: true
```

After the upgrade to 1.18 it fails, even if I set the parameter type to hash.

--- "*/srv/pipeline 10.11.0.0/16(ro,root_squash) fdf7:2c2c:1100::/56(ro,root_squash)"

#11 - 08/23/2018 01:40 PM - Daniel Helgenberger
The migration did fail because I had this value of type yaml in one of my parameters:

```ruby
--- "*/srv/pipeline 10.11.0.0/16(ro,root_squash) fdf7:2c2c:1100::/56(ro,root_squash)"
```

```
# foreman-rake db:migrate: redo VERSION=20180816134832
/usr/share/foreman/lib/core_extensions.rb:182: warning: already initialized constant ActiveSupport::MessageEncryptor::DEFAULT_CIPHER
/opt/theforeman/tfm-ror51/root/usr/share/gems/gems/activerecord-5.1.6/lib/active_record/attributes.rb:22: warning: previous definition of DEFAULT_CIPHER was here
== 20180816134832 CastLookupKeyValues: reverting -------------------------------
== 20180816134832 CastLookupKeyValues: reverted (0.0000s) ---------------------
== 20180816134832 CastLookupKeyValues: migrating ------------------------------
Error casting value /srv/pipeline 10.11.0.0/16(ro,root_squash) fdf7:2c2c:1100::/56(ro,root_squash) for #<LookupValue id: 663, match: "fqdn=pipeline.int.m-box.de", value: "*/srv/pipeline 10.11.0.0/16(ro,root_squash) fdf7:2c2c:1100::/56(ro,root_squash)", lookup_key_id: 1104, created_at: "2016-06-15 14:33:48", updated_at: "2017-05-24 07:52:46", omit: false> with error unknown regexp options - "ppl". near line 1: " 10.11.0.0/16(ro,root_squash) fdf7:2c2c:1100::/56(ro,root_squash)". Perhaps it is invalid?
```

03/19/2022
The failed value indeed does not look like a valid yaml value, was it valid before the upgrade?

The failed value indeed does not look like a valid yaml value

However, it is valid yaml, just checked it with http://www.yamllint.com/. I just reverted to my 1.16.2 snapshot so I can confirm it is there before the migration.

- Pull request https://github.com/theforeman/foreman/pull/5990 added
- Pull request https://github.com/theforeman/foreman/pull/5995 added
- Pull request https://github.com/theforeman/foreman/pull/5998 added
- Fixed in Releases 1.17.4, 1.18.2 added
- Related to Bug #23581: Upgrade to Foreman 1.17 converts YAML to JSON Hash added

Files

<table>
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<tr>
<th>Name</th>
<th>Size</th>
<th>Date</th>
<th>Author</th>
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<tbody>
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<td>Screenshot from 2018-08-23 15-35-22.png</td>
<td>68.8 KB</td>
<td>08/23/2018</td>
<td>Daniel Helgenberger</td>
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