

Arvados - Story #15795

[API] Accept configured SystemRootToken without doing a database lookup

11/05/2019 06:42 PM - Tom Clegg

Status:	Resolved	Start date:	11/23/2019
Priority:	Normal	Due date:	
Assigned To:	Peter Amstutz	% Done:	100%
Category:		Estimated time:	0.00 hour
Target version:			
Description			
The main benefit is a simpler installation process (the installer can use a randomly generated string, instead of running a rake task that depends on other parts of the configuration being ready enough for API to start up). A secondary benefit is speeding up system requests a little bit.			
With this change, RailsAPI can also throw an "invalid config" error at startup if SystemRootToken is not configured. (With the current code this can't be treated as an error because RailsAPI needs to load its config in order to generate a valid SystemRootToken.)			
Subtasks:			
Task # 15872: Review 15795-sys-root-token			Resolved
Related issues:			
Related to Arvados - Story #15107: [controller] Implement native Google login...		Resolved	10/31/2019
Related to Arvados - Story #15720: [API] Unified user listing across all clus...		Resolved	11/19/2019

Associated revisions

Revision 0110ce93 - 11/26/2019 08:06 PM - Peter Amstutz

Merge branch '15795-sys-root-token' refs #15795

Arvados-DCO-1.1-Signed-off-by: Peter Amstutz <pamstutz@veritasgenetics.com>

Revision fb72a431 - 11/28/2019 03:19 PM - Tom Clegg

Merge branch '15795-sys-root-token'

refs #15795

Arvados-DCO-1.1-Signed-off-by: Tom Clegg <tclegg@veritasgenetics.com>

History

#1 - 11/05/2019 06:42 PM - Tom Clegg

- Project changed from OPS to Arvados

#2 - 11/05/2019 06:54 PM - Tom Clegg

- Related to Story #15107: [controller] Implement native Google login (configurable as an alternative to sso-provider) added

#3 - 11/05/2019 09:48 PM - Tom Clegg

- Description updated

#4 - 11/22/2019 09:42 PM - Tom Clegg

- Related to Story #15720: [API] Unified user listing across all clusters in a federation added

#5 - 11/23/2019 02:17 AM - Peter Amstutz

- Assigned To set to Peter Amstutz

- Target version changed from To Be Groomed to 2019-12-04 Sprint

#6 - 11/23/2019 02:36 AM - Peter Amstutz

15795-sys-root-token @ [f9b77d02131fc84a59ba72118dd41f34c894277f](https://ci.curoverse.com/view/Developer/job/developer-run-tests/1667/)

<https://ci.curoverse.com/view/Developer/job/developer-run-tests/1667/>

#7 - 11/25/2019 02:49 PM - Tom Clegg

Tests will probably do better after merging master.

I was surprised to find this inside the "not a v2 token" else block. Unless there's a reason SystemRootToken shouldn't be allowed to look like a v2 token, I think "if SystemRoot ... elsif v2 ... else ..." would be a bit less mysterious.

The create_superuser_token.rb script creates an api_client entry with is_trusted=true. Here we use api_client_id=0 instead, which (I think) will mean is_trusted=false. Does this have any implications for services or other expected root token usage?

Add SystemRootToken instructions to <https://doc.arvados.org/master/install/install-api-server.html>, and remove the steps on keepstore (and other?) pages that say to run create_superuser_token.rb and copy it to SystemRootToken

Ensure a 1.4-to-1.5 upgrade doesn't result in an API server that won't come up (is there anything in 1.4 that would have told the admin to add a SystemRootToken?)

#8 - 11/25/2019 02:52 PM - Tom Clegg

Seems like we could also remove the superuser token fixture from the test database, and instruct the admin to remove their old database record after upgrading (or even do that automatically -- maybe at server startup?).

#9 - 11/25/2019 05:28 PM - Peter Amstutz

Tom Clegg wrote:

The create_superuser_token.rb script creates an api_client entry with is_trusted=true. Here we use api_client_id=0 instead, which (I think) will mean is_trusted=false. Does this have any implications for services or other expected root token usage?

This ends up putting a stake through the heart of "don't do a database lookup" if we can't use a static api_client_id. So I went with a new approach: synchronize the configuration system root token with a special database record "[zzzzz-qj3su-000000000000000](#)".

The "without a database lookup" part of the story is no longer true, but otherwise this ensures everything behaves normally by having the system root token be a real record.

Add SystemRootToken instructions to <https://doc.arvados.org/master/install/install-api-server.html>, and remove the steps on keepstore (and other?) pages that say to run create_superuser_token.rb and copy it to SystemRootToken

I will be doing a big refactor/rewrite of install and configuration docs in [#15572](#), so can I defer this and address it there?

Ensure a 1.4-to-1.5 upgrade doesn't result in an API server that won't come up (is there anything in 1.4 that would have told the admin to add a SystemRootToken?)

Ok, I made SystemRootToken optional for API to start up. However, without setting a value there, the controller callbacks that use it won't work. Tokens issued by create_superuser_token.rb will continue to work, though.

15795-sys-root-token @ [6749376dd2fbd5f6bc6f870ae382bdb5cb8aaf17](#)

<https://ci.curoverse.com/view/Developer/job/developer-run-tests/1669/>

#10 - 11/25/2019 07:09 PM - Tom Clegg

this ensures everything behaves normally by having the system root token be a real record

Hm. Copying/synchronizing SystemRootToken into the database feels like a step backward. Could we use a new unsaved api_client record, just like the new unsaved api_client_authorization record? Or even update the small number of places where a_c_a.a_c.is_trusted gets checked?

This is blocking [#15720](#) because [#15720](#) behaves badly when SystemRootToken is empty -- but isn't this latest version back to allowing SystemRootToken to be empty?

Seems like the config loader should be helping with the migration: if SystemRootToken is missing, get it from the database & warn; if not in database either, must be a new cluster, so just error out.

#11 - 11/25/2019 10:28 PM - Peter Amstutz

Tom Clegg wrote:

this ensures everything behaves normally by having the system root token be a real record

Hm. Copying/synchronizing SystemRootToken into the database feels like a step backward. Could we use a new unsaved api_client record, just

like the new unsaved `api_client_authorization` record? Or even update the small number of places where `a_c_a_c.is_trusted` gets checked?

Ok I backed all that out. Creates a trusted `ApiClient` record to go with the `ApiClientAuthorization`. Passes tests. Rebased so the branch history isn't confusing.

[a789502c40006646e3929246cf79f50bc89c0e54](https://ci.curoverse.com/view/Developer/job/developer-run-tests/1673/) -- <https://ci.curoverse.com/view/Developer/job/developer-run-tests/1673/>

#12 - 11/26/2019 04:03 PM - Tom Clegg

- Status changed from *New* to *In Progress*

LGTM except dispatcher expects a uuid in the `arvados/v1/api_client_authorization/current` response. Pushed a fix & test:

15795-sys-root-token @ [3d5e303970a342dd80a617058852a0dab686cfd0](https://ci.curoverse.com/view/Developer/job/developer-run-tests/1676/) -- <https://ci.curoverse.com/view/Developer/job/developer-run-tests/1676/>

#13 - 11/26/2019 05:31 PM - Peter Amstutz

- Target version deleted (2019-12-04 Sprint)

Tom Clegg wrote:

LGTM except dispatcher expects a uuid in the `arvados/v1/api_client_authorization/current` response. Pushed a fix & test:

15795-sys-root-token @ [3d5e303970a342dd80a617058852a0dab686cfd0](https://ci.curoverse.com/view/Developer/job/developer-run-tests/1676/) -- <https://ci.curoverse.com/view/Developer/job/developer-run-tests/1676/>

wb integration had many failures, rerunning here:

<https://ci.curoverse.com/job/developer-run-tests-apps-workbench-integration/1774/>

#14 - 11/26/2019 08:05 PM - Peter Amstutz

Got a successful build here

<https://ci.curoverse.com/job/developer-run-tests-apps-workbench-integration/1775/>

Will merge now.

#15 - 11/28/2019 03:35 PM - Tom Clegg

The merge didn't include the fix from note-12. Looks like the missing uuid also causes a crash in `containers#update` when using `SystemRootToken`, so `containers` can't finish.

```
2019-11-28T14:31:02.716988850Z error in UpdateContainerFinal: arvados API server error: #<TypeError: no implicit conversion of nil into String> (req-14awf5imf8b9s74mztv6) (422: 422 Unprocessable Entity) returned by 4xphq.arvadosapi.com
```

```
TypeError: no implicit conversion of nil into String
/data/var-www/arvados-api/current/app/models/api_client_authorization.rb:301:in '+'
/data/var-www/arvados-api/current/app/models/api_client_authorization.rb:301:in `v2token'
/data/var-www/arvados-api/current/app/models/api_client_authorization.rb:293:in `token'
/data/var-www/arvados-api/current/app/models/container.rb:505:in `validate_change'
/data/var-www/arvados-api/current/app/controllers/application_controller.rb:120:in `update'
/data/var-www/arvados-api/current/app/controllers/arvados/v1/containers_controller.rb:33:in `block in update'
/data/var-www/arvados-api/current/app/controllers/arvados/v1/containers_controller.rb:32:in `update'
/data/var-www/arvados-api/current/app/controllers/application_controller.rb:423:in `block in set_current_request_id'
/data/var-www/arvados-api/current/app/controllers/application_controller.rb:422:in `set_current_request_id'
/data/var-www/arvados-api/current/app/middlewares/arvados_api_token.rb:66:in `call'
```

Merged [3d5e30397](https://ci.curoverse.com/view/Developer/job/developer-run-tests/1676/) to master @ [fb72a4315bfcf64621d023a38d1544319aa3666c](https://ci.curoverse.com/view/Developer/job/developer-run-tests/1676/)

#17 - 12/17/2019 04:21 PM - Tom Clegg

- Status changed from *In Progress* to *Resolved*

#18 - 01/22/2020 02:41 PM - Peter Amstutz

- Release set to 22