Enable a client to retrieve a collection record (with a given UUID) from its home cluster, even if the collection is hosted on a different cluster in a federation.

This issue covers the arvados-controller changes required for basic functionality.

- proxy "get collection" requests with foreign UUIDs to the appropriate remote cluster (similar to #13493)
- alter the signature hints in the returned record so keepstore will be able to get the data from the remote cluster (see Federated collections wiki)

This issue does not include

- cache optimizations
- changes to keepstore (#13994)

Subtasks:

Task # 14053: Review 13993-federated-collection

Resolved

Related issues:

Resolved

- Related to Arvados - Feature #13493: Federated record retrieval
- Related to Arvados - Feature #13994: [Keepstore] Fetch blocks from federated clusters
- Related to Arvados - Feature #14087: [controller] Fetch remote-hosted collection

Resolved

Associated revisions

Revision 2b0b0657 - 09/11/2018 03:40 PM - Peter Amstutz

Merge branch '13993-federated-collection' refs #13993

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

History

#1 - 08/08/2018 03:12 PM - Peter Amstutz

- Subject changed from [API] Fetch remote-hosted container by UUID to [API] Fetch remote-hosted collection by UUID
- Description updated

#2 - 08/08/2018 03:13 PM - Peter Amstutz

- Related to Feature #13493: Federated record retrieval added

#3 - 08/08/2018 03:13 PM - Peter Amstutz

- Related to Feature #13994: [Keepstore] Fetch blocks from federated clusters added

#4 - 08/08/2018 03:13 PM - Peter Amstutz

- Description updated

#5 - 08/08/2018 03:14 PM - Peter Amstutz

- Description updated

#6 - 08/08/2018 03:18 PM - Peter Amstutz

- Description updated
#7 - 08/08/2018 04:47 PM - Tom Morris
- Target version changed from To Be Groomed to Arvados Future Sprints
- Story points set to 2.0

#8 - 08/10/2018 03:26 AM - Tom Clegg
- Description updated

#9 - 08/15/2018 04:35 PM - Tom Morris
- Target version changed from Arvados Future Sprints to 2018-09-05 Sprint

#10 - 08/15/2018 04:36 PM - Tom Morris
- Assigned To set to Fuad Muhic

#11 - 08/20/2018 01:05 PM - Peter Amstutz
- Assigned To deleted (Fuad Muhic)

#13 - 08/21/2018 07:51 PM - Peter Amstutz
- Related to Feature #14087: [controller] Fetch remote-hosted collections by PDH added

#14 - 09/05/2018 02:49 PM - Peter Amstutz
- Target version changed from 2018-09-05 Sprint to 2018-09-19 Sprint

#15 - 09/05/2018 03:41 PM - Peter Amstutz
- Subject changed from [API] Fetch remote-hosted collection by UUID to [API] Fetch remote-hosted collection by UUID
- Assigned To set to Peter Amstutz

#16 - 09/07/2018 08:08 PM - Peter Amstutz
13993-federated-collection @ 9c1f240500cca97e986b5290cdc9c719fe1a283

#17 - 09/10/2018 04:17 PM - Lucas Di Pentima
Some comments:

- On file lib/controller/federation.go
  - Line 96 - Small detail: I think just multiplying by 1.1 would more readable
  - Line 76: Docs about locator format talks about lowercase hex digits (https://doc.arvados.org/api/storage.html & https://dev.arvados.org/projects/arvados/wiki/Keep_locator_format), should we stick to that definition?
  - I think it would be convenient to update the locator format documentation to describe a +R hint
  - We have a previous signed locator Regex on sdk/go/keepclient/perms.go:68 that looks more correct (because I believe the current one doesn't allow +A hints that aren't signature hints), should we export it so it can be reused here?
  - Tests are failing

#18 - 09/10/2018 08:19 PM - Peter Amstutz
Lucas Di Pentima wrote:

Some comments:

- On file lib/controller/federation.go
  - Line 96 - Small detail: I think just multiplying by 1.1 would more readable

I was trying to avoid converting to double precision and back but I agree that's a silly micro-optimization in this case at the expense of readability

- Line 76: Docs about locator format talks about lowercase hex digits (https://doc.arvados.org/api/storage.html & https://dev.arvados.org/projects/arvados/wiki/Keep_locator_format), should we stick to that definition?

See below

- I think it would be convenient to update the locator format documentation to describe a +R hint

I have a documentation story to write up federation features (the task on #13493 assigned to me), maybe I can do it there?
We have a previous signed locator Regex on sdk/go/keepclient/perms.go:68 that looks more correct (because I believe the current one doesn't allow +A hints that aren't signature hints), should we export it so it can be reused here?

I consolidated the regex so the one in keepclient can be used by federation.go

Tests are failing

Works for me... Kicked off a run here: https://ci.curoverse.com/view/Developer/job/developer-run-tests/881/

#19 - 09/10/2018 10:16 PM - Peter Amstutz
Now fe235611ed2a6247830d7e65b02b319fa687f372
Try this https://ci.curoverse.com/view/Developer/job/developer-run-tests/882/

#20 - 09/11/2018 02:01 PM - Lucas Di Pentima
Just one question: Would it be convenient to also add a test for a local collection request, so we test both sides? Apart from that, it LGTM.

#21 - 09/11/2018 03:06 PM - Peter Amstutz
Lucas Di Pentima wrote:

Just one question: Would it be convenient to also add a test for a local collection request, so we test both sides? Apart from that, it LGTM.

Added TestGetLocalCollection @ 9d2e1158e961801db714d3c6942b3596b867e7

#22 - 09/11/2018 03:32 PM - Lucas Di Pentima
Thanks! This lgtm.

#23 - 09/14/2018 02:35 PM - Peter Amstutz
- Status changed from New to Resolved

#24 - 11/13/2018 09:00 PM - Tom Morris
- Release set to 14