Arvados - Feature #16048

Automatically reload/restart services on configuration change

01/18/2020 12:49 AM - Peter Amstutz

Status:	Resolved		**Start date:**	04/14/2020
Priority:	Normal		**Due date:**	
Assigned To:	Tom Clegg		**% Done:**	100%
Category:			**Estimated time:**	0.00 hour
Target version:	2020-04-22			

Description

Subtasks:

Task # 16322: Review 16048-reload-config	**In Progress**

Related issues:

Related to Arvados Epics - Story #15941: arvados-boot	**In Progress**	06/01/2022	09/30/2022
Related to Arvados - Bug #8374: [KEEPSTORE] detection of new drives	**Closed**	02/04/2016	
Related to Arvados - Story #16069: [boot] start a dev cluster	**New**		

Associated revisions

Revision ea6f25f0 - 04/21/2020 06:34 PM - Tom Clegg

Merge branch '16048-reload-config'

closes #16048

Arvados-DCO-1.1-Signed-off-by: Tom Clegg <tom@tomclegg.ca>

History

#1 - 01/18/2020 12:49 AM - Peter Amstutz

- Status changed from New to In Progress

#2 - 01/18/2020 12:49 AM - Peter Amstutz

- Status changed from In Progress to New

- Tracker changed from Bug to Feature

#3 - 01/18/2020 12:49 AM - Peter Amstutz

- Related to Story #15941: arvados-boot added

#4 - 01/18/2020 12:49 AM - Peter Amstutz

- Related to Bug #8374: [KEEPSTORE] detection of new drives added

#5 - 01/22/2020 05:54 PM - Tom Clegg

- Related to Story #16069: [boot] start a dev cluster added

#6 - 04/01/2020 06:33 PM - Peter Amstutz

- Target version set to 2020-04-22

#7 - 04/08/2020 03:41 PM - Tom Clegg

- Assigned To set to Tom Clegg

#8 - 04/10/2020 05:46 PM - Tom Clegg

- Status changed from New to In Progress

#9 - 04/10/2020 05:57 PM - Tom Clegg

16048-reload-config @ 45c57dc86010f8fd9ae862d91a710e0752ceda4a -- https://ci.arvados.org/view/Developer/job/developer-run-tests/1807/

If AutoReloadConfig is true in the config (see doc/examples/config/zzzzz.yml), arvados-server boot notices when the config file changes. If it changes in a meaningful way (as opposed to just changing YAML formatting, adding/removing a value that's already the default, etc) then it shuts down and restarts all services. This takes about 15s on my machine.

With a minimal config like zzzzz.yml that relies on auto-assigned port numbers, restarting means assigning port numbers. This means you should either:

- configure (at least) the controller URL explicitly instead of relying on auto-assigned ports, so ports stay stable across restarts, or
- expect to reconfigure/restart any clients after updating config, so they use the new controller, keepproxy, keepstore, etc. endpoints, or
- not use AutoReloadConfig.

#10 - 04/15/2020 02:23 PM - Lucas Di Pentima

Sorry for the delay, yesterday I wasn't being able to run arvados-server boot on my usual dev VM because of some bundle version issue. Had to make a new one for it to work.

What would be the use case for this feature?

- I'm thinking that if the idea is to be able to do integration testing with different cluster configurations, maybe we should preserve the postgresql database? I've done some manual testing and it seems that it's more of a complete cluster reset and not just a restart/reload feature.
- If the idea is to just have an automatic cluster reset feature, it LGTM.

#11 - 04/21/2020 06:33 PM - Tom Clegg

Agree, when using -own-temporary-database the side effect of resetting the database is probably a drawback more often than a feature. And the big shutdown/startup is slow. For now this just gives us more convenience than restarting everything manually.

In future we'll surely want to make it more efficient -- and perhaps avoid downtime entirely when port #s aren't changing, making it usable in production -- by reloading/restarting only the services that are potentially affected by the change.

#12 - 04/21/2020 07:06 PM - Anonymous

- *% Done changed from 0 to 100*

- *Status changed from In Progress to Resolved*

Applied in changeset arvados|ea6f25f0dde5c750eacea29662c19149c7800134.

#13 - 10/07/2020 02:11 AM - Peter Amstutz

- *Release set to 25*