Pulp - Issue #5906

tasks can be assigned to dead workers

12/19/2019 09:41 PM - jsherril@redhat.com

Status:	CLOSED - WORKSFORME	**Start date:**	
Priority:	Normal	**Due date:**	
Assignee:	bmbouter	**Estimated time:**	0:00 hour
Category:			
Sprint/Milestone:			
Severity:	2. Medium	**Groomed:**	No
Version:		**Sprint Candidate:**	No
Platform Release:		**Tags:**	
OS:		**Sprint:**	Sprint 65
Triaged:	Yes	**Quarter:**	

Description

I hit a situation with pulp3 where i synced a repository and the task never got picked up. After restarting ALL pulp3 services, i was still seeing this behavior. Other repositories synced without issue.

Turns out, all these stuck syncs are being assigned to the same worker that no longer existed:

```
- pulp_href: "/pulp/api/v3/tasks/04b2f793-ef3e-49fa-8698-b3f86654d48e/"
  pulp_created: '2019-12-19T20:28:02.060+00:00'
  state: waiting
  name: pulp_container.app.tasks.synchronize.synchronize
  worker: "/pulp/api/v3/workers/3880936c-1a64-46ff-9651-7fefef088c69/"
  progress_reports: []
  created_resources: []
  reserved_resources_record:
  - "/pulp/api/v3/remotes/container/container/366ec86d-5910-499f-ab51-07bc73cafb80/"
  - "/pulp/api/v3/repositories/container/container/1026248f-1e62-497d-9dee-d8c959dea8d4/"
```

stutus output:

```
{
  "versions": [
    {
      "component": "pulpcore",
      "version": "3.0.0rc9"
    },
    {
      "component": "pulp_2to3_migration",
      "version": "0.0.1a1.dev0"
    },
    {
      "component": "pulp_file",
      "version": "0.1.0.dev0"
    },
    {
      "component": "pulp_container",
      "version": "1.0.0rc2.dev0"
    },
    {
      "component": "pulp_ansible",
      "version": "0.2.0b7.dev0"
    },
    {
      "component": "pulp_rpm",
      "version": "3.0.0rc2.dev0"
    }
```

```
    ],
    "online_workers": [
        {
            "pulp_href": "/pulp/api/v3/workers/7f91ec97-98e3-47f2-a1d8-10e0f2bf13ec/",
            "pulp_created": "2019-12-19T20:27:44.849421Z",
            "name": "23430@devel.balmora.example.com",
            "last_heartbeat": "2019-12-19T20:38:33.138047Z"
        },
        {
            "pulp_href": "/pulp/api/v3/workers/19bf0a63-d8c9-4f9b-b7e2-4597c903c31c/",
            "pulp_created": "2019-12-19T20:27:45.006246Z",
            "name": "23429@devel.balmora.example.com",
            "last_heartbeat": "2019-12-19T20:38:33.138315Z"
        },
        {
            "pulp_href": "/pulp/api/v3/workers/68acaa8e-5b2e-4fb5-b17a-f903171691db/",
            "pulp_created": "2019-12-11T17:10:07.192264Z",
            "name": "resource-manager",
            "last_heartbeat": "2019-12-19T20:38:35.546686Z"
        }
    ],
    "online_content_apps": [
        {
            "name": "23444@devel.balmora.example.com",
            "last_heartbeat": "2019-12-19T20:38:31.081544Z"
        },
        {
            "name": "23442@devel.balmora.example.com",
            "last_heartbeat": "2019-12-19T20:38:31.088967Z"
        }
    ],
    "database_connection": {
        "connected": true
    },
    "redis_connection": {
        "connected": true
    },
    "storage": {
        "total": 42927656960,
        "used": 23027937280,
        "free": 19899719680
    }
}
```

Dead worker details:

```
$ curl https://`hostname`/pulp/api/v3/workers/3880936c-1a64-46ff-9651-7fefef088c69/  -u admin:pass
word | jq
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
100   206  100   206    0     0    655      0 --:--:-- --:--:-- --:--:--   658
{
  "pulp_href": "/pulp/api/v3/workers/3880936c-1a64-46ff-9651-7fefef088c69/",
  "pulp_created": "2019-12-16T15:04:54.639299Z",
  "name": "1989@devel.balmora.example.com",
  "last_heartbeat": "2019-12-19T19:53:36.786369Z"
}
```

History

#1 - 12/19/2019 10:06 PM - jsherril@redhat.com

I fetched all the tasks associated with those reserved resources:

```
$ curl https://`hostname`/pulp/api/v3/tasks/?reserved_resources_record=/pulp/api/v3/remotes/container/containe
r/366ec86d-5910-499f-ab51-07bc73cafb80/  -u admin:password  |jq
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
```

```
100  2715  100  2715    0     0   8207      0 --:--:-- --:--:-- --:--:--  8227
{
  "count": 4,
  "next": null,
  "previous": null,
  "results": [
    {
      "pulp_href": "/pulp/api/v3/tasks/04b2f793-ef3e-49fa-8698-b3f86654d48e/",
      "pulp_created": "2019-12-19T20:28:02.060726Z",
      "state": "waiting",
      "name": "pulp_container.app.tasks.synchronize.synchronize",
      "started_at": null,
      "finished_at": null,
      "error": null,
      "worker": "/pulp/api/v3/workers/3880936c-1a64-46ff-9651-7fefef088c69/",
      "progress_reports": [],
      "created_resources": [],
      "reserved_resources_record": [
        "/pulp/api/v3/remotes/container/container/366ec86d-5910-499f-ab51-07bc73cafb80/",
        "/pulp/api/v3/repositories/container/container/1026248f-1e62-497d-9dee-d8c959dea8d4/"
      ]
    },
    {
      "pulp_href": "/pulp/api/v3/tasks/92bbd7a5-8714-424d-9eef-2245e5cd4ad6/",
      "pulp_created": "2019-12-19T20:18:57.083880Z",
      "state": "canceled",
      "name": "pulp_container.app.tasks.synchronize.synchronize",
      "started_at": null,
      "finished_at": null,
      "error": null,
      "worker": "/pulp/api/v3/workers/3880936c-1a64-46ff-9651-7fefef088c69/",
      "progress_reports": [],
      "created_resources": [],
      "reserved_resources_record": [
        "/pulp/api/v3/repositories/container/container/1026248f-1e62-497d-9dee-d8c959dea8d4/",
        "/pulp/api/v3/remotes/container/container/366ec86d-5910-499f-ab51-07bc73cafb80/"
      ]
    },
    {
      "pulp_href": "/pulp/api/v3/tasks/8b2a3659-396e-4f25-8bb3-bc5f1b02ef18/",
      "pulp_created": "2019-12-19T20:05:18.591109Z",
      "state": "waiting",
      "name": "pulp_container.app.tasks.synchronize.synchronize",
      "started_at": null,
      "finished_at": null,
      "error": null,
      "worker": "/pulp/api/v3/workers/3880936c-1a64-46ff-9651-7fefef088c69/",
      "progress_reports": [],
      "created_resources": [],
      "reserved_resources_record": [
        "/pulp/api/v3/repositories/container/container/1026248f-1e62-497d-9dee-d8c959dea8d4/",
        "/pulp/api/v3/remotes/container/container/366ec86d-5910-499f-ab51-07bc73cafb80/"
      ]
    },
    {
      "pulp_href": "/pulp/api/v3/tasks/ea008903-fac7-46d1-ae76-7cac037b87b6/",
      "pulp_created": "2019-12-19T19:50:00.190200Z",
      "state": "failed",
      "name": "pulp_container.app.tasks.synchronize.synchronize",
      "started_at": "2019-12-19T19:50:00.357552Z",
      "finished_at": "2019-12-19T19:53:36.773635Z",
      "error": {
        "traceback": "",
        "description": "None"
      },
      "worker": "/pulp/api/v3/workers/3880936c-1a64-46ff-9651-7fefef088c69/",
      "progress_reports": [
        {
          "message": "Downloading tag list",
          "code": "downloading.tag_list",
          "state": "running",
          "total": 1,
          "done": 0,
          "suffix": null
        },
```

```
        {
          "message": "Downloading Artifacts",
          "code": "downloading.artifacts",
          "state": "running",
          "total": null,
          "done": 0,
          "suffix": null
        },
        {
          "message": "Associating Content",
          "code": "associating.content",
          "state": "running",
          "total": null,
          "done": 0,
          "suffix": null
        }
      ],
      "created_resources": [
        null
      ],
      "reserved_resources_record": [
        "/pulp/api/v3/repositories/container/container/1026248f-1e62-497d-9dee-d8c959dea8d4/",
        "/pulp/api/v3/remotes/container/container/366ec86d-5910-499f-ab51-07bc73cafb80/"
      ]
    }
  }
  ]
}
```

#2 - 12/19/2019 10:12 PM - jsherril@redhat.com

It looks like i might have shut down the workers around the time that initial sync failed:

```
Dec 19 19:53:36 devel.balmora.example.com systemd[1]: Stopping Pulp RQ Worker...
Dec 19 19:53:36 devel.balmora.example.com systemd[1]: Stopping Pulp RQ Worker...
Dec 19 19:53:37 devel.balmora.example.com systemd[1]: pulpcore-worker@2.service: main process exited, code=exi
ted, status=120/n/a
Dec 19 19:53:37 devel.balmora.example.com systemd[1]: Stopped Pulp RQ Worker.
Dec 19 19:53:37 devel.balmora.example.com systemd[1]: Unit pulpcore-worker@2.service entered failed state.
Dec 19 19:53:37 devel.balmora.example.com systemd[1]: pulpcore-worker@2.service failed.
Dec 19 19:53:37 devel.balmora.example.com systemd[1]: Started Pulp RQ Worker.
Dec 19 19:53:37 devel.balmora.example.com systemd[1]: pulpcore-worker@1.service: main process exited, code=exi
ted, status=120/n/a
Dec 19 19:53:37 devel.balmora.example.com systemd[1]: Stopped Pulp RQ Worker.
Dec 19 19:53:37 devel.balmora.example.com systemd[1]: Unit pulpcore-worker@1.service entered failed state.
Dec 19 19:53:37 devel.balmora.example.com systemd[1]: pulpcore-worker@1.service failed.
Dec 19 19:53:37 devel.balmora.example.com systemd[1]: Started Pulp RQ Worker.
```

#3 - 12/20/2019 12:10 PM - meldaresearch

- File 13b.jpg added

#4 - 12/20/2019 04:34 PM - fao89

- Triaged changed from No to Yes

- Sprint set to Sprint 63

#5 - 12/20/2019 04:35 PM - fao89

- File deleted (13b.jpg)

#6 - 01/15/2020 10:02 PM - rchan

- Sprint changed from Sprint 63 to Sprint 64

#7 - 01/24/2020 02:58 PM - rchan

- Sprint changed from Sprint 64 to Sprint 65

#8 - 01/27/2020 08:41 PM - bmbouter

@jsherrill what do you think I can do to reproduce this?

#9 - 01/27/2020 08:42 PM - bmbouter

- Status changed from NEW to ASSIGNED

- Assignee set to bmbouter

#10 - 01/27/2020 09:19 PM - jsherril@redhat.com

You can try:

1. starting a sync
2. systemctl restart 'pulpcore-workers@*'
3. Start a new sync

but i have no idea how reproducible this is. I only saw it on the one installation (which is why i immediately came on #pulp-dev to ask for what info was needed). As soon as i reset my environment i haven't seen it again.

Here's some info from the chat:

```
jsherrill        i searched for tasks with the same reservation, and there was 2 waiting, 1 cancelled (that i
cancelled), and 1 'failed'
jsherrill        looks like the failed one was maybe running at some point
jsherrill        it has 'running' progress reports
jsherrill        i even see this in my logs:
jsherrill        Dec 16 19:11:25 devel rq: pulp: rq.worker:INFO: Cleaning registries for queue: 1989@devel.bal
mora.example.com
jsherrill        which seems to be the worker in question
jsherrill        but i guess thats more an rq thing
dkliban jsherrill: i think you are onto something
jsherrill        let me put the task list in the issue too
jsherrill        https://pulp.plan.io/issues/5906#note-1
jsherrill        that last task is the one that 'died' or 'failed'
jsherrill        and i'm not sure what put it in that state
jsherrill        let me doublecheck journalctl
jsherrill        it looks like maybe i had shut down the workers at that 19:53
```

#11 - 01/28/2020 04:02 PM - bmbouter

- Status changed from ASSIGNED to CLOSED - WORKSFORME

I added a 10-second sleep statement to the sync task to slow it down. Then I reset my pulp environment and ran a script that:

makes a repo
makes a remote
sync's the remote from the remote to successfully bring in a few content units (from fedorapeople)

Then I took my Pulp system down to 1 worker. Then I start the sync and first I used systemctl to restart the worker. Later I would do this again, only I would pkill -9 -f pulpcore-worker which did successfully kill the worker. In both cases the task was shown as 'canceled' as follows:

```
{
    "count": 1,
    "next": null,
    "previous": null,
    "results": [
        {
            "pulp_href": "/pulp/api/v3/tasks/7718277d-33f4-41da-9933-6a2e5bfebe05/",
            "pulp_created": "2020-01-28T14:27:20.001474Z",
            "state": "canceled",
            "name": "pulp_file.app.tasks.synchronizing.synchronize",
            "started_at": "2020-01-28T14:27:20.122284Z",
            "finished_at": null,
            "error": null,
            "worker": "/pulp/api/v3/workers/770e12fb-6a8f-4b03-9de2-24ae24f000b7/",
            "progress_reports": [],
            "created_resources": [],
            "reserved_resources_record": [
                "/pulp/api/v3/repositories/file/file/23027b38-2770-4144-bce3-b2edf189d71c/",
                "/pulp/api/v3/remotes/file/file/a6f3e605-79a5-4b10-9a74-0c1a78578a6c/"
            ]
        }
    ]
}
```

In the case of prestart the worker gracefully canceled it's own work upon shutdown (as expected). In the case of pkill, the resource manager cleaned up and logged that the worker went missing (as expected).

Then after restarting the worker I performed more sync's and those were always scheduled on the current worker.