

## Migration Plugin - Story #3821

### As a user, I can migrate from Pulp 2 to Pulp 3

07/06/2018 06:21 PM - dkliban@redhat.com

<b>Status:</b>	CLOSED - CURRENTRELEASE	<b>Start date:</b>	07/05/2019
<b>Priority:</b>	Normal	<b>Due date:</b>	07/12/2019
<b>Assignee:</b>		<b>% Done:</b>	100%
<b>Category:</b>		<b>Estimated time:</b>	0:00 hour
<b>Sprint/Milestone:</b>		<b>Tags:</b>	
<b>Platform Release:</b>		<b>Sprint:</b>	
<b>Groomed:</b>	No	<b>Quarter:</b>	
<b>Sprint Candidate:</b>	No		

#### Description

### Description

Pulp 3 will provide a plugin that will enable users to migrate their Pulp 2 instances to Pulp 3. The package will be called pulp-2to3-migration. Plugin writers will contribute to it to provide support of migration of the content types managed by that plugin.

After installing pulp-2to3-migration on a Pulp 3 system, users will be able to use the REST API on Pulp 3 to start the migration of the Pulp 2 instance to Pulp 3. Users will be able to describe the final state of their Pulp 3 instance for a specific plugin using a Migration Plan (MP). The MP is a JSON document that describes which artifacts, content, repositories, repository versions, publication, remotes, and distributions get created in Pulp 3 from their equivalent counterparts in Pulp 2. Users will be able to use Pulp 2's REST API to generate a default MP for migrating everything. Users will then submit the MP via REST API to Pulp 3.

After the migration task start running in Pulp 3, the user will be able to use the REST API to query the mappings between Pulp 2 and Pulp 3 resources.

### Features

#### **Pulp 2 will provide a REST API that returns a default Migration Plan.**

This Migration Plan will migrate all content, all repositories, all importers, and all distributors.

#### **Pulp 3 will provide a REST API that:**

- creates a Migration Plan
- executes a Migration plan in one of 3 modes (run the migration without validation, run migration if MP is validated, run validation only - dry-run).

This API will dispatch one or more tasks to perform the migration. The tasking system will limit one migration "operation" at a time, although many tasks may run concurrently for that operation.

When dry\_run is set to True, the Migration Plan validated and some information about the plan is returned to the user. Some validation that will be performed will include:

- JSON syntax
  - do the listed Pulp 2 entities exist
- ~~If all validation passes, the user receives a list of Content types and Repositories from Pulp 2 that will be used to create content and repositories in Pulp 3.~~

#### **Pulp 3 will provide multiple REST APIs for querying mappings between Pulp 2 and Pulp 3.**

One for content, one for repository and related resources - importers, distributors.

### Migration Plan schema

The Migration Plan (MP) will consist of the plugin type and repositories specification for each plugin. The Repositories section will describe Repositories, RepositoryVersions, Publications, and Distributions to create.

## Examples

The MP below will:

- migrate all content for ISO and Docker plugins
- create a repository with name 'foo' in Pulp 3.
- create a Remote in Pulp 3 based on details of an importer for the repo "my-repo-id-for-importer" in Pulp 2
- create one repository version that will have the same content set as the ISO 'my-repo-id' repo in Pulp 2
- implicitly create a Publication from this repository version
- create 2 distributions based on details of distributors in Pulp 2
- both of these distributions will serve the same publication.

```
{
  "plugins": [
    {
      "type": "iso",
      "repositories": [
        {
          "name": "foo",
          "pulp2_importer_repository_id": "my-repo-id-for-importer"
          "repository_versions": [
            {
              "pulp2_repository_id": "my-repo-id",
              "distributor_ids": ["distributor_id1", "distributor_id2"]
            },
          ]
        }
      ]
    },
    {
      "type": "docker",
    }
  ]
}
```

The MP below will:

- migrate all ISO content
- implicitly create a repository with a single repository version in Pulp 3 for every repository in Pulp 2
- the content set of the repository version will match the content of the repository in Pulp 2
- implicitly create a Publication for all repositories that need publications
- implicitly create a Remote for every importer associated with the repository
- implicitly create a Distribution for every non-export distributor associated with the repository and associate either the RepositoryVersion or Publication with that Distribution

```
{
  "plugins": [
    {
      "type": "iso",
    }
  ]
}
```

### Subtasks:

Story # 2962: As an User I would like to migrate in-place from Pulp2 to Pulp3

CLOSED - WONTFIX

Story # 3822: As a user, I can migrate all content units of a specific type from Pulp 2...

CLOSED - CURRENT

Story # 3810: As a user, I can migrate ISO content units from Pulp 2 into Pulp 3 as Fil...

CLOSED - CURRENT

Task # 4205: bootstrap pulp-2to3-migrate django app

CLOSED - COMPLETE

Story # 5337: As a user, I can fully migrate on\_demand content

CLOSED - CURRENT

Story # 5363: As a user, I can migrate docker content units from Pulp 2 into Pulp 3

CLOSED - CURRENT

Task # 3823: Analyze repository version creation performance for pulp\_file

CLOSED - WONTFIX

Task # 3824: Analyze repository version creation performance for pulp\_rpm

CLOSED - COMPLETE

Story # 5003: As a user, I can use the REST API to dispatch a Pulp 2 to 3 migration task.

CLOSED - CURRENT

Story # 5080: As a user, I can track which tasks were using a specific Migration Plan

CLOSED - DUPLICATI

Task # 5081: Add ability to the migration tool to connect to mongodb from Pulp 3 enviro...	CLOSED - CURRENT
Task # 5082: As a developer, pulplift can create a dev environment for migration tool	CLOSED - COMPLETE
Task # 5083: Add model for Pulp 2 data and dump Pulp 2 generic data using this model	CLOSED - CURRENT
Story # 5178: As a user, a Migration Plan is validated	CLOSED - CURRENT
Story # 5229: As a user, I can see progress of Migration Plan execution	CLOSED - CURRENT
Story # 5230: As a user, I have a default configuration for MongoDB connection	CLOSED - CURRENT
Story # 5231: As a user, I can query Pulp 2->Pulp 3 mapping for migrated content	CLOSED - CURRENT
Story # 5307: As a user, I can migrate repositories from Pulp2 to Pulp3	CLOSED - CURRENT
Task # 5306: Add models to pre-migrate pulp 2 data about repositories/importers/distrib...	CLOSED - CURRENT
Story # 5340: As a user, I can migrate Pulp 2 repository and importer to Pulp 3	CLOSED - CURRENT
Story # 5342: As a user, I can migrate repository into a set of repository versions	CLOSED - CURRENT
Story # 5343: As a user, I can migrate Pulp 2 distributor into publication/distribution...	CLOSED - CURRENT
Story # 5319: As a user I have validated resources Migration plan refers to	CLOSED - CURRENT
Story # 5407: As a user I have a pulp2 api that generates a MP template	CLOSED - WONTFIX
Story # 5450: As a user, a Migration Plan is respected	CLOSED - CURRENT
Task # 5476: Let plugin migrate all its content models at once and not one by one	CLOSED - CURRENT
Issue # 5485: Migration plugin should filter only those repo types that belong to the p...	CLOSED - CURRENT
Refactor # 5491: Stop using mappings for plugin specific items, move everything to a plu...	CLOSED - CURRENT
Story # 5549: As a user, I can migrate content only	CLOSED - WONTFIX
Task # 5632: Mark changed/removed Pulp 2 repositories/importers/distributors	CLOSED - CURRENT
Story # 5634: As a user, I can query Pulp 2->Pulp 3 mapping for migrated resources	CLOSED - CURRENT
Task # 5837: Specify pulp2_distributor_repository_ids instead of distributor_ids	CLOSED - CURRENT
Task # 5845: Update get_pulp3_repository_setup so repos are grouped by plugin type	CLOSED - CURRENT
Task # 5849: Add an example of a migration plan	CLOSED - CURRENT
Task # 5852: Add ability to pre-migrate importers and distributors independently from t...	CLOSED - CURRENT

#### Related issues:

Related to Migration Plugin - Test #5194: [Epic] Test migration from Pulp 2 t...	CLOSED - COMPLETE
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#### History

##### #1 - 07/06/2018 06:34 PM - dkliban@redhat.com

- Tracker changed from Issue to Story

- % Done set to 0

##### #2 - 07/18/2018 10:58 PM - jsherril@redhat.com

- Tags Katello-P1 added

##### #3 - 04/26/2019 10:34 PM - bmbouter

- Tags deleted (Pulp 3)

##### #4 - 05/29/2019 11:24 PM - dkliban@redhat.com

- Description updated

##### #5 - 06/03/2019 06:58 PM - dkliban@redhat.com

- Description updated

##### #6 - 06/03/2019 09:13 PM - dkliban@redhat.com

- Description updated

##### #7 - 06/26/2019 10:54 PM - jsherril@redhat.com

- Tags Katello-P3 added

- Tags deleted (Katello-P1)

##### #8 - 07/29/2019 11:10 PM - kersom

- Related to Test #5194: [Epic] Test migration from Pulp 2 to Pulp 3 added

**#9 - 10/18/2019 09:28 AM - ttereshc**

- Description updated

**#10 - 10/18/2019 09:40 AM - ttereshc**

- Description updated

**#11 - 10/18/2019 09:42 AM - ttereshc**

- Description updated

**#12 - 10/18/2019 09:43 AM - ttereshc**

- Description updated

**#13 - 10/18/2019 09:44 AM - ttereshc**

- Tags Pulp 2 to 3 Migrate added

- Tags deleted (Katello-P3)

**#14 - 01/14/2020 05:40 PM - ttereshc**

- Project changed from Pulp to Migration Plugin

**#15 - 02/12/2020 06:53 PM - ttereshc**

- Description updated

**#16 - 05/22/2020 05:48 PM - bmbouter**

- Tags deleted (Pulp 2 to 3 Migrate)

We're removing the 'Pulp 2 to 3 Migrate' tag to allow membership of the Migration Plugin project in Redmine to be the controlling area  
<https://pulp.plan.io/projects/migration>

**#17 - 03/30/2021 06:45 PM - ttereshc**

- Status changed from NEW to CLOSED - CURRENTRELEASE