

Katello Imports & Exports

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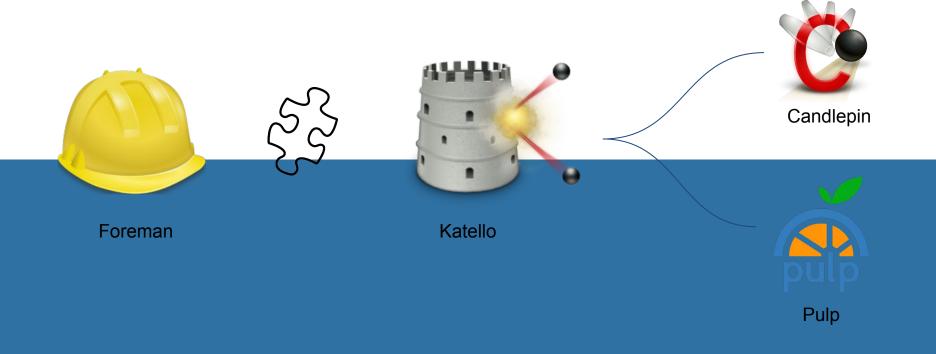




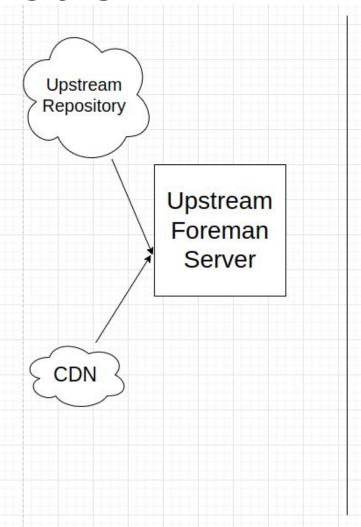
Provisioning Configuration Monitoring



The Stack



Problem



Downstream Foreman Server

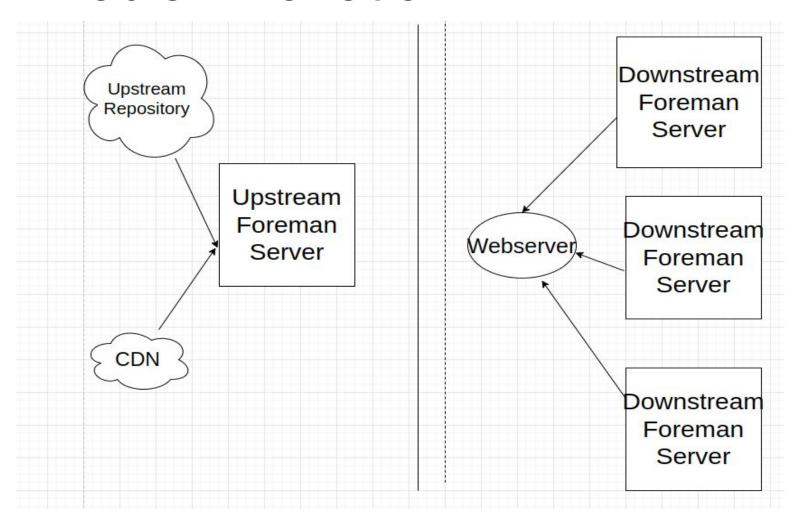
Downstream Foreman Server

Downstream Foreman Server





Problem Variation







Pulp 3 Exporters

Pulp Exporter (Default Format)

- Available for yum, file, containers, ansible collection
- Facilitates both regular and incremental exports. When creating the exporter user can give it
 - Export directory
 - Repository Version to export
 - Start Version (Optional). Used for incremental exports.
 - Repository Version Start Version exported
- Copies artifacts to disk and compresses them. (Need at least 2x space.)
- Chunkable
- Users can then import this in another pulp instance.
- Checksums are part of exports and actively checked on the import.
- Artifact structure does not resemble the source feed.
- Upstream and Downstream pulp versions have to match upto x.y (3.39 on both sides for example.)





Pulp Exporter export structure

```
[root@upstream ~]# tree /var/lib/pulp/exports/export-23529/Export-misc-2/
/var/lib/pulp/exports/export-23529/Export-misc-2/
       2023-11-08T21-56-02-00-00
           export-018bb0ef-6b72-788b-a916-0f85908bfe95-20231108_2156.tar.gz
            export-018bb0ef-6b72-788b-a916-0f85908bfe95-20231108_2156-toc.json
           metadata.json
 directories, 3 files
```





Pulp 3 Exporters

- Filesystem Exporter (Syncable Format)
 - o Available for yum, file
 - Facilitates both regular and incremental exports. When creating the exporter user can give it
 - Export directory
 - Repository Version to export
 - Start Version (Optional). Used for incremental exports.
 - Repository Version Start Version exported
 - Hardlink artifacts to disk (so not 2x space unless the export directory is in a different partition.)
 - Export structure resembles the source feed Yum or File repo
 - User can then pull content from this export in a different pulp instance using standard create and sync.
 - Tends to be faster than regular export due to lack of compression (but slightly apples and oranges comparison.)
 - No extra checksums (yum repo checksums only)



Filesystem export structure

```
[root@upstream ~]# tree /var/lib/pulp/exports/export-23529/Export-SYNCABLE-misc-2/1.0/2023-11-08T21-56-16-00-00/
var/lib/pulp/exports/export-23529/Export-SYNCABLE-misc-2/1.0/2023-11-08T21-56-16-00-00/
   custom
     prod
          - misc
               Packages
                       bear-4.1-1.noarch.rpm
                       camel-0.1-1.noarch.rpm
                       cat-1.0-1.noarch.rpm
                       cheetah-1.25.3-5.noarch.rpm
                       chimpanzee-0.21-1.noarch.rpm
```





Demo time









Questions?



Thanks!

https://theforeman.org/

https://github.com/Katello/katello