GlideinWMS - Feature #24407

Support CVMFS and Singularity when none of the 2 is available on the worker node

05/13/2020 09:06 AM - Marco Mambelli

Status:	New		**Start date:**	05/13/2020
Priority:	High		**Due date:**	
Assignee:	Marco Mambelli		**% Done:**	0%
Category:			**Estimated time:**	0.00 hour
Target version:	v3_7_4		**Spent time:**	0.00 hour
Stakeholders:	CMS			

Description

Sometimes CVMFS is not available and Singularity neither.

The Glidein should be able to connect to CVMFS and start Singularity from there.
There are some possibility, from Dave:

```
1. mountrepo/umountrepo only
• requires fusermount; mounts in user space
• map /cvmfs in container with singularity –bind (not run from cvmfs because of path)
2. cvmfsexec on RHEL 7.6 or 7.7
• requires fusermount and additionally unprivileged user namespaces enabled
• maps /cvmfs without singularity, can run singularity under it
• unmounts repos on exit, but not with kill -9
3. cvmfsexec on RHEL >= 7.8
• no fusermount needed, and cleans up mounts even with kill -9
• still needs unprivileged user namespaces enabled; that is default on RHEL 8
4. singcvmfs on any system with singularity >= 3.4.0
• drop-in replacement for singularity; set environment variable with cvmfs repos to mount
• requires container image to already be present (not read from cvmfs)
• requires setuid-root singularity except when RHEL >= 7.8 and and singularity >= 3.6.0
```

Consider also

- package building (at reconfig/upgreade)
- proxy search and setup (WPAD)

Related issues:

Related to GlideinWMS - Milestone #19515: Roadmap for Singularity support	**New**	**03/27/2018**
Blocked by GlideinWMS - Feature #24546: Add the ability to use CVMFS on sites...	**Work in progress**	**06/29/2020**

History

#1 - 05/13/2020 09:07 AM - Marco Mambelli

- Related to Milestone #19515: Roadmap for Singularity support added

#2 - 05/13/2020 09:28 AM - Marco Mambelli

- Priority changed from Normal to High

- Description updated

- Subject changed from Support CVMFS and Singularity when none of the 2 is available to Support CVMFS and Singularity when none of the 2 is available on the worker node

#3 - 06/22/2020 07:26 PM - Marco Mambelli

CVMFS support has been moved to [#24546], specified in more detail

#4 - 06/22/2020 07:27 PM - Marco Mambelli

- Blocked by Feature #24546: Add the ability to use CVMFS on sites that do not provide local installations added

#5 - 09/17/2020 02:17 PM - Marco Mambelli

- Target version changed from v3_6_4 to v3_6_5

#6 - 10/04/2020 01:49 AM - Marco Mambelli

- Target version changed from v3_6_5 to v3_6_6

#7 - 10/08/2020 09:39 AM - Marco Mambelli

- Target version changed from v3_6_6 to v3_6_7

#8 - 02/14/2021 07:38 PM - Marco Mambelli

- Target version changed from v3_6_7 to v3_7_4