GlideinWMS Credentials Revision

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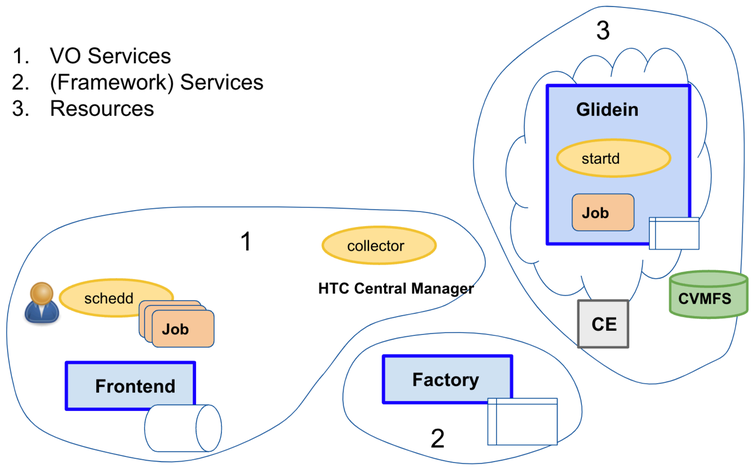
Overview of GlideinWMS

GlideinWMS is a simple way for users to access grid resources, or for a single person to use multiple different computers at the same time, without having to individually schedule jobs. In most cases , HTCondor is used to schedule and control jobs at the grid sites. Through a process of checking in, the GlideinWMS frontend makes sure there are enough glide ins available for the submitted requests. This way the user doesn't need to worry about any of the processes that go on in the background for requesting jobs.

1. VO Services
2. (Framework) Services
3. Resources



Relationship between Frontend, Factory, and Glideins

Solution & Process

- Locate all credential functions throughout the files
- Condense all usage of credentials into one file
- Use abstract classes to ease use of credentials
- Update python version
- Optimize security and performance

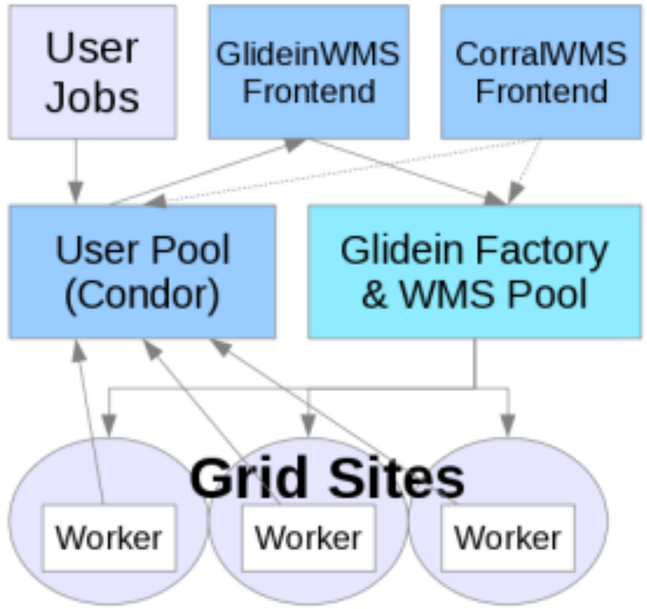


Diagram of GlideinWMS

Conclusion

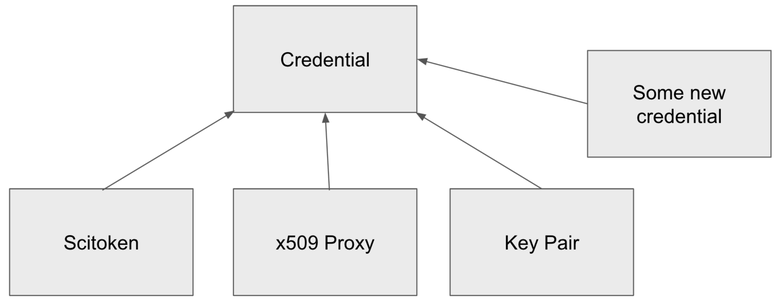
GlideinWMS developers can use credentials without having to create supplementary functions for its use. With a credential superclass, it is also easier to add new credentials should the occasion ever arise. Overall, GlideinWMS Credentials are easier to access and use, mitigating previous confusion surrounding credentials.

GlideinWMS

The Glidein-based Workflow Management System

Credentials Overview and Issue

In order to secure the system, there are a variety of credentials that are used to verify the identity and certifications of the user. These include x509 Proxy, scitokens, or username and password to name a few. Because they are used throughout the codebase in both the frontend and factory, at times using credentials causes confusion and disarray. (This project is also 15 years in the making ~ which means lots of legacy code)



Example of Credentials with abstract classes

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