



Managed by Fermi Research Alliance, LLC for the U.S. Department of Energy Office of Science

GlideinWMS

Parag Mhashilkar

Stakeholders Meeting

March 15, 2017

Overview

- Updates since last stakeholder's meeting
- Upcoming releases
- Reference slides
 - GlideinWMS Architecture
 - Quick Facts
 - Releases since last stakeholders meeting

Highlights Since Last Stakeholders Meeting

- Announcements
 - New Technical Lead: Marco Mambelli
 - New opening for a developer coming up soon!
- Project Effort (2.85 FTE)
 - Project Management: 0.15 FTE
 - Development & Support: 2.70 FTE
 - Parag Mhashilkar: **-0.2** (0.45 ➔ 0.25)
- Communication
 - Regular participation of CMS and OSG Factory Ops in the weekly GlideinWMS meetings
- Support
 - Support load expected to pick up as the development of the HEP Cloud Decision Engine ramps up
 - Fermilab's implementation of HEP Cloud will use GlideinWMS factory as the provisioner

Highlights Since Last Stakeholders Meeting

- Summary
 - 2016
 - Production series (v3.2.12 - v3.2.16): versions=7, features=5, bugfixes=1
 - Development series (v3.3 - v3.3.1): versions=2, features=27, bugfixes=53
 - 2017
 - Production series (v3.2.17 - v3.2.18): versions=2, features=11, bugfixes=13
 - Development series (-): versions=0, features=0, bugfixes=0
- Releases: (Details in Reference Slides)
 - v3_2_17: January 25, 2017
 - Glideins fall back to curl for staging input files if wget is missing on the worker node
 - Added support for RHEL6 & RHEL7 systemctl scripts and daemon functions
 - Ability to request disk space for special resource slots
 - Pilot accounting information from jobs is now available in glidein's job classad in the factory schedd
 - Frontend service performance stats now available in the glidefrontendmonitor classad
 - Several bug fixes
 - v3_2_18: February 28, 2017
 - Several bug fixes that address starting/stopping services using RHEL features
 - v3_3_2: Tentatively by March 24
 - Based on v3_2_18
 - Allow multiple remote directories for BOSCO submissions
 - Fixes issues affecting glidein submission to AWS

Milestones

- Previous Milestones
 - “Why is my job not running”?
 - Scheduled for v3.2.19+
- New Milestones
 - Scale factory to O(600+) entries
 - Balancing requests to factory entries that are aliases or meta sites
 - Support Singularity (glexec replacement)
 - CI
 - More unittests
 - Automate deployment and testing

Upcoming Releases - Production Series (v3.2.x)

- Primary Focus of Production Series:
 - High impact bug fixes and features that do not break backward compatibility

v3_2_19+

- Frontend monitoring to store number of job restarts
- Monitor number of job activation/claims per glidein
- Support singularity
- Balancing requests to factory entries that are aliases or meta sites
- Scale factory to O(600+) entries
- “Why is my job not running?”

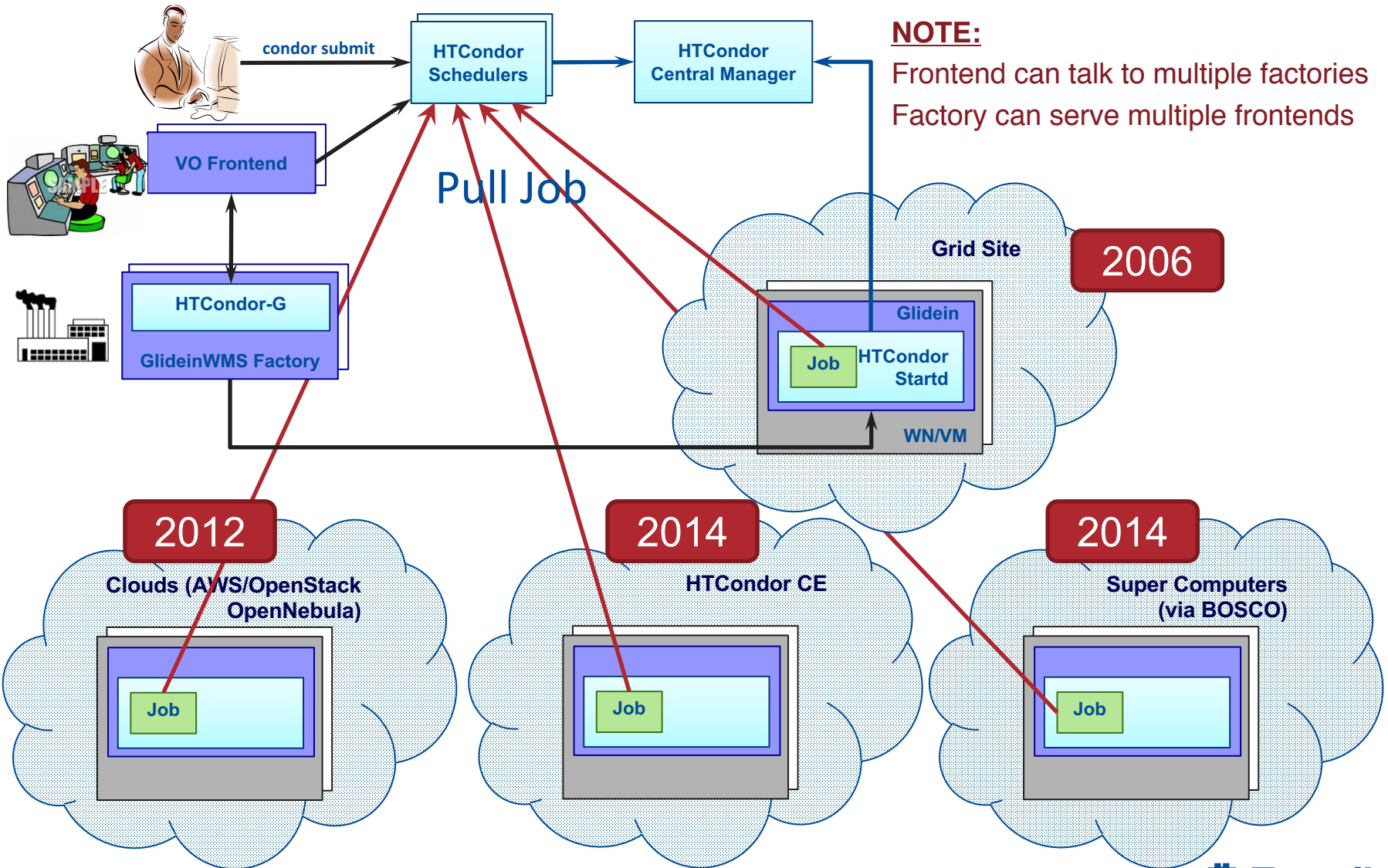
Upcoming Releases - Development Series (v3.3.x)

- Primary Focus of Development Series:
 - Production quality but some features maybe experimental
 - Milestones and timelines expected to be primarily driven by the HEP Cloud Decision Engine requirements
- Next Release: v3.3.2
 - v3_3_2 – Tentatively by March 24, 2017**
 - Allow multiple remote directories for BOSCO submissions
- Plan for moving v3.3 series to production in summer 2017

Questions/Comments

Reference Slides

GlideinWMS



GlideinWMS: Quick Facts

- GlideinWMS is an open-source product (<http://tinyurl.com/glideinWMS>)
- Heavy reliance on HTCondor (UW Madison) and we work closely with them
- Effort:

Role	Resources	Effort (FTE)
Project Mgmt/Lead	Parag Mhashilkar (0.15 USCMS)	0.15
Development & Support	Parag Mhashilkar (0.20 SCD) Marco Mambelli (1 SCD) Hyunwoo Kim (0.5 SCD) Dennis Box (0.5 SCD) Marco Mascheroni (0.5 CMS - Contractor)	2.70
TOTAL		2.85

Table: Current Resources & Roles

- Additional Code Contributions (Past year)
 - Jeff Dost (UCSD)
 - Edgar Fajardo (UCSD)

Quick Facts: Releases & Support Structure

- Releases
 - Issues tracked in redmine issue tracker
 - <https://cdcvs.fnal.gov/redmine/projects/glideinwms/issues>
 - Categorized and prioritized based on impact, urgency and requester
 - Issues are now associated with respective stakeholders
 - Issues are assigned based on developer's expertise and other workload
 - Roadmap for upcoming releases available in redmine (See reference slides)
 - SCM
 - All releases are version controlled and tagged
 - <http://glideinwms.fnal.gov/doc.prd/download.html>
 - Release notes & history
 - <http://glideinwms.fnal.gov/doc.prd/history.html>
- Support
 - Entire development team is responsible for support

Quick Facts: Project Status & Communication Channels

- Project meeting: Wednesdays 10 – 11 am
 - Technical discussions & status updates
 - Regular stakeholder participation
 - Contact Parag Mhashilkar if you need invite for this meeting
- Quarterly Stakeholders Meeting
- Project Management
 - Project Status reported monthly at CS Project status meetings

Area of Interest	Mailing Lists
Support	glideinwms-support@fnal.gov
Stakeholders	glideinwms-stakeholders@fnal.gov
Release Announcements	glideinwms-support@fnal.gov cms-dct-wms@fnal.gov glideinwms-stakeholders@fnal.gov
Future Release plans	See next slide
Discussions	glideinwms-discuss@fnal.gov
Code commits	glideinwms-commit@fnal.gov Twitter Tag: @glideinwms

Tracking Releases in Redmine

1. Visit the redmine issues tab for GlideinWMS or the URL

Default tabs not too useful

2. Click custom query for stakeholder or version roadmap

Issues

My custom queries

- Issues Awaiting My Feedback
- My Unresolved Issues
- Custom queries
- CMS Tickets
- FIFE Tickets
- OSG Tickets
- One Facility Tickets
- Operations Tickets
- CMS Master Ticket
- Igor Sfiligoi's Tickets
- Issues Awaiting Developer Feedback
- Issues by Age
- John Weigand's Tickets
- List With Due Date
- My Open Issues
- Not Closed + Grouped by Assigned To
- Not Closed + Grouped by Target Version
- Open Bugs: High Priority
- Series v2.7.x
- Series v3.2.x
- Series v3.x
- Stakeholder Requests
- Tickets with no version
- Unassigned Tickets
- v3.2.10: Roadmap
- v3.2.9: Open Issues
- v3.2.9: Road Map
- v3.3: Road Map

#	Tracker	Target version	Status	Priority	Subject	Assignee	Updated	OSG
2409	Feature	v3_2_10	New	High	Support validation scripts to run periodically (not just at pilot start)	Marco Mambelli	05/13/2015 01:26 PM	OSG VO
6897	Bug	v3_2_10	Feedback	High	Partitionable glideins not accounted for correctly	Parag Mhashikar	05/12/2015 04:42 PM	OSG
7927	Feature	v3_2_10	New	High	Per-frontend unique idle job counts	Marco Mambelli	04/13/2015 04:16 AM	OSG
4904	Feature	v3_2_10	Assigned	Normal	Specify a default for GWMS_XSLT_PLUGIN_DIR	Marco Mambelli	04/01/2015 01:43 PM	OSG
4846	Feature	v3_2_10	Assigned	Normal	Include GWMS_XSLT_PLUGIN_DIR setting in generated {factory,frontend}_startup	Marco Mambelli	04/01/2015 01:42 PM	OSG
7807	Feature	v3_2_10	New	Normal	Support CONDORCE_COLLECTOR_HOST for OSG sites	Parag Mhashikar	04/13/2015 03:21 AM	OSG
8437	Feature	v3_2_10	New	Normal	Split entry configuration from main factory config	Parag Mhashikar	04/27/2015 12:13 PM	OSG, CMS
4587	Bug	v3_2_x	Assigned	Normal	OSG: Automate / fix HTCondor-CE issues	Burt Holzman	02/03/2015 02:44 PM	OSG
6732	Bug	v3_2_x	New	Normal	Glideins report 100% success rate even if startd fails to start/run a matched job.	Marco Mambelli	03/04/2015 04:47 PM	CMS, OSG
3203	Feature	v3_2_x	Assigned	Normal	OSG: condor-g-analyze	Burt Holzman	02/03/2015 02:44 PM	OSG

GlideinWMS Releases - Key Features

v3_2_17 – January 25, 2017

- Glideins fallback to curl if transferring files from the factory/frontend staging area fails using wget
- Added support for systemctl init scripts for RHEL6 and RHEL7
- Factory and Frontend service init scripts now use daemon functions
- Added ability to request disk space for special resource slots
- Updated jQuery in monitoring webpages to version 1.12
- Updated Documentation
- Pilot accounting information from jobs is now available in the glidein job's classad on the factory side
- Frontend service performance stats are now advertised in the glidefrontendmonitor classad
- Bug Fix: Factory not correctly consider the cluster size when doing multiple submissions during same cycle
- Bug Fix: Fixed race condition where periodic scripts in glidein would corrupt a glidein_config
- Bug Fix: Fixed an issue where some START_EXPR were incorrectly ignored
- Bug Fix: When not configured GLIDEIN_CPUS default back to 1 rather than trying to auto detect available cores
- Bug Fix: Glideins will not use UTMP be default

GlideinWMS Releases - Key Features

v3_2_18 – February 28, 2017

- Bug Fix: ProjectId is missing double quotes
- Bug Fix: Stdout messages from startup script in SL7 are confusing
- Bug Fix: Service definition file for SL7 is marked executable and it should not
- Bug Fix: Upgrade not working when frontend/factory are running
- Bug Fix: Use of daemon function to start process does not play well with non empty pid files