



A Refreshing Talk – Tokens and the CE

EU HTCondor Workshop 2022

Jaime Frey



More of a Discussion

- > HTCondor-CE doesn't support token refresh
- Does it need to?





Long Batch Queue Times

- Job credential must be valid in 7 days
- Option: long lifetime
 - Bigger security risk if compromised
- Option: frequent refresh
 - More machinery, higher workload





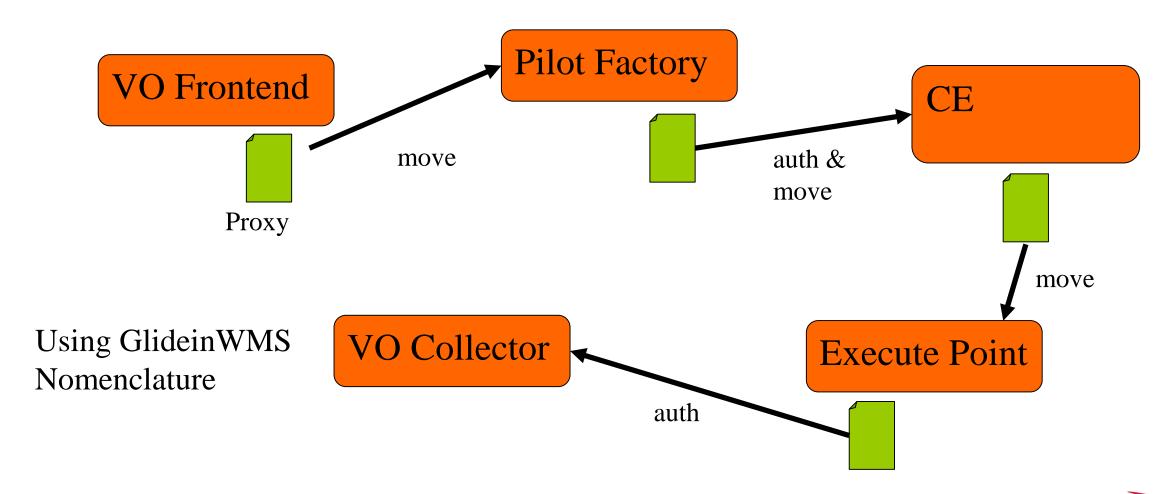
New Credential Model

- GSI proxies (old)
 - Powerful, hard to restrict
- Tokens (new)
 - Limit services it can use
 - Limit actions at services
 - Makes long lifetime more feasible





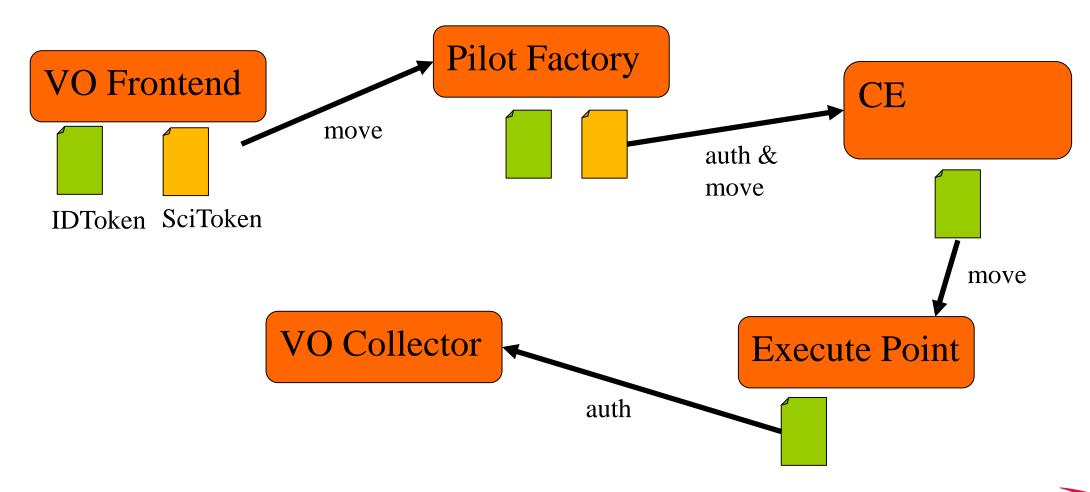
Glideins with GSI Proxies







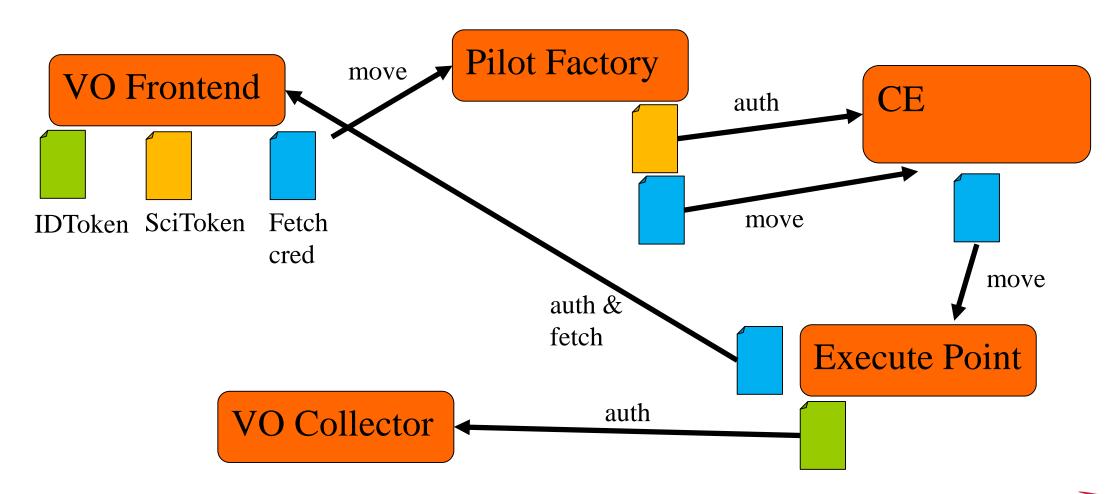
Glideins with Tokens







Glideins with Tokens+







Implementation Issues

- > Refreshing GSI proxies is expensive
 - Separate TCP connection with delegation for each job to CE
 - Simple solution for refreshing tokens would be similar
- CE and HTCondor-C (client of the CE) have no knowledge of tokens for the job
- > Addressing both issues would take effort





Thank You!

THROUGHPUT COMPUTING

This work is supported by <u>NSF</u> under Cooperative Agreement <u>OAC-2030508</u> as part of the <u>PATh Project</u>. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the NSF.



