

# What's Next for the HTCondor-CE?

WLCG GDB: 13 January 2021

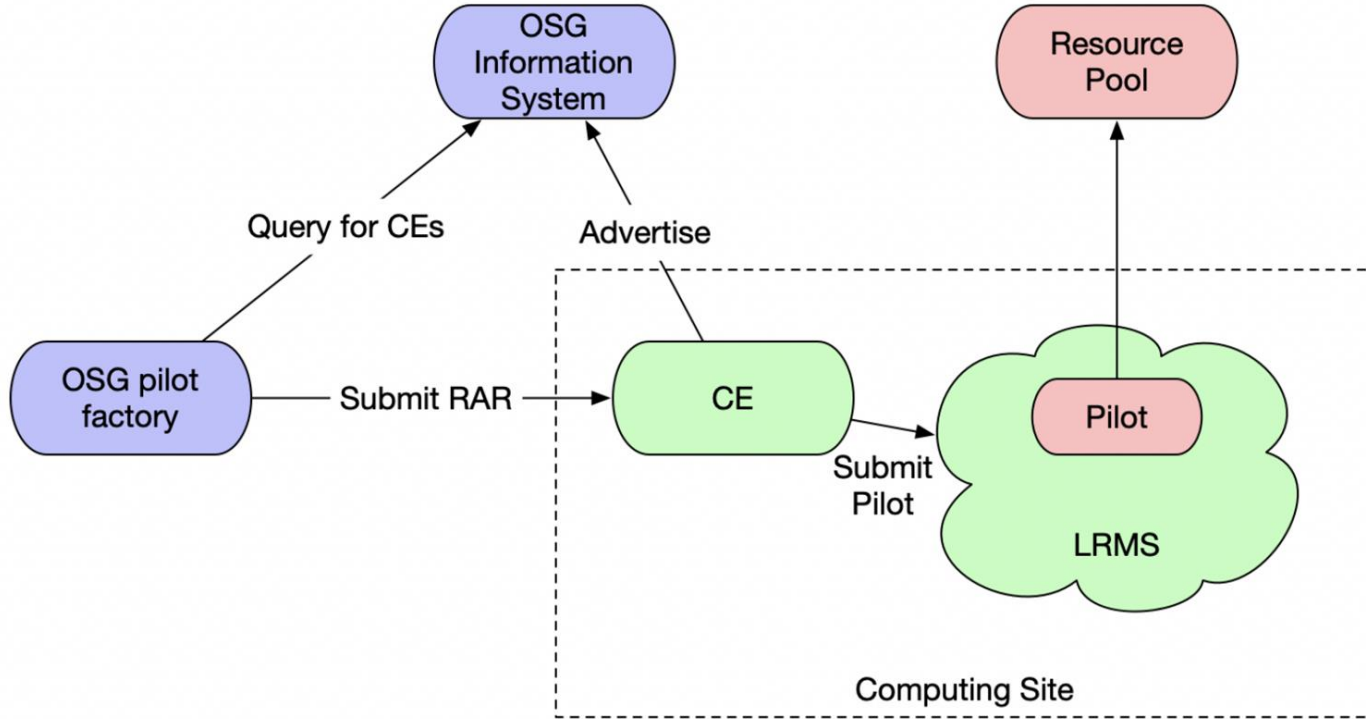
Brian Lin and Todd Tannenbaum  
University of Wisconsin–Madison



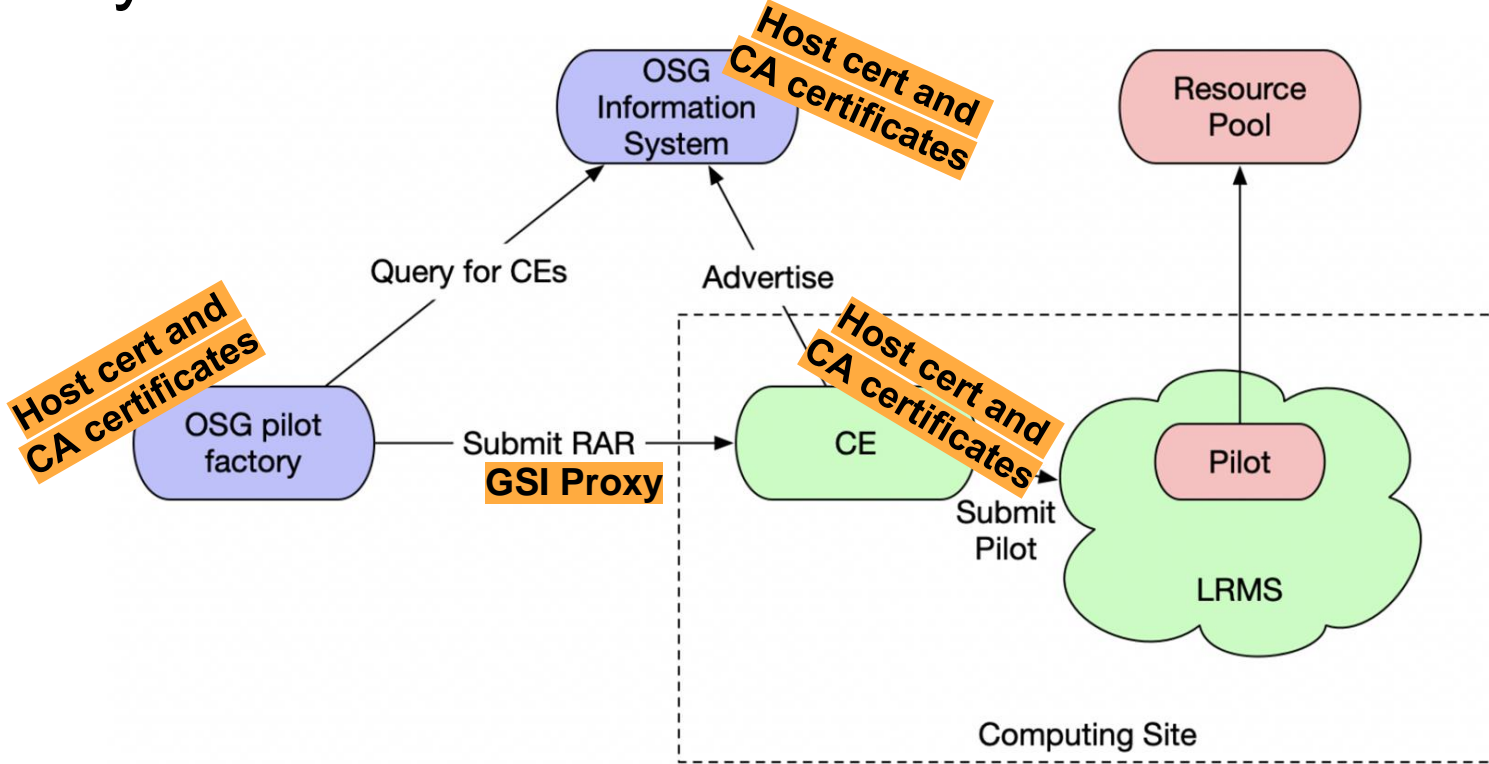
# Impending changes: Tokens, Python 3, and EL 8

- Python 3 and Enterprise Linux 8 support expected in a release this month
- SciTokens/WLCG Tokens
  - SciTokens are already supported with HTCondor-CE 4 and HTCondor 8.9.5+!
  - GSI is still supported but SciTokens/WLCG Tokens is preferred
  - Demonstrated token-based job submission with GlideinWMS and Harvester
  - HTCondor-CE configuration and troubleshooting documentation to come

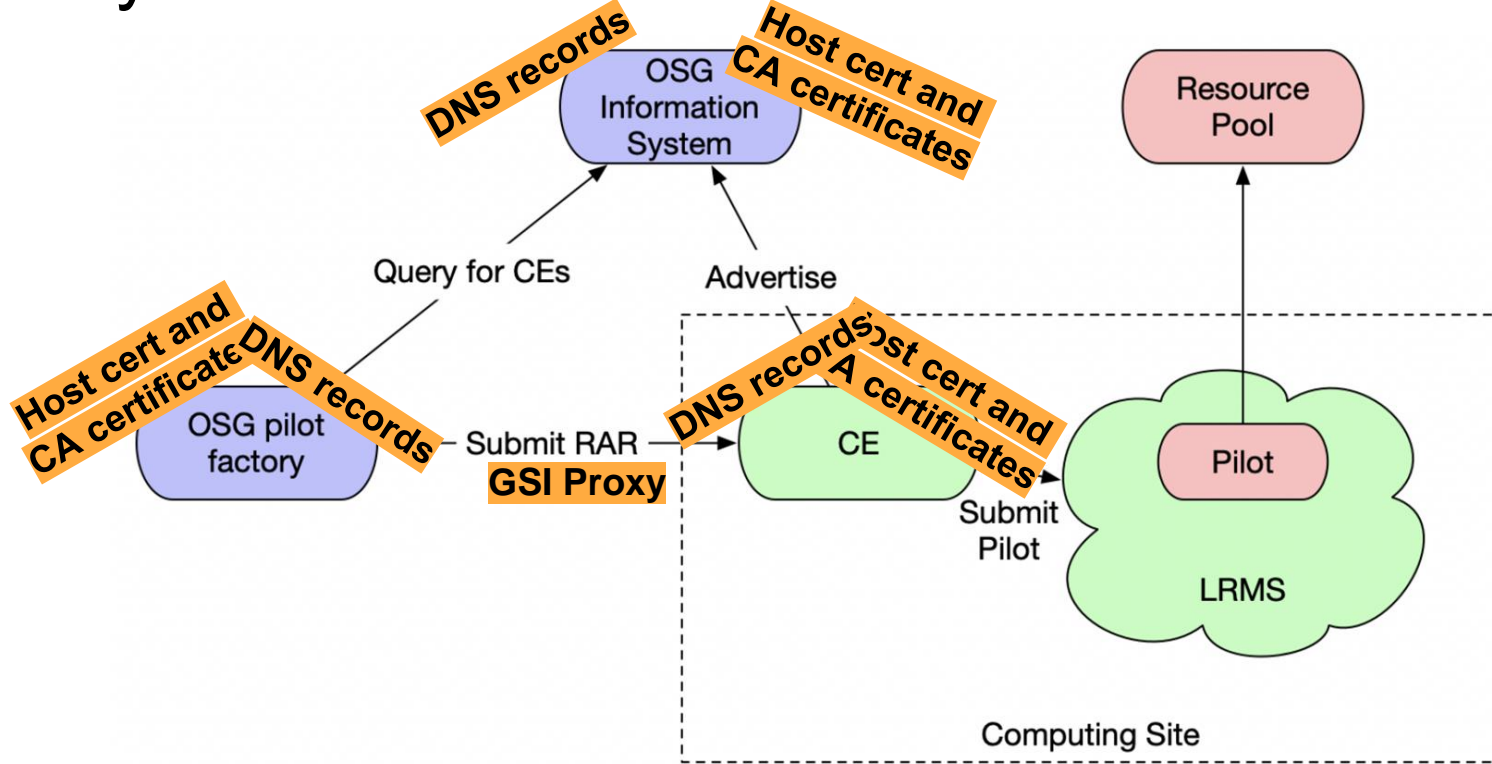
# Today's Grid Trust Model



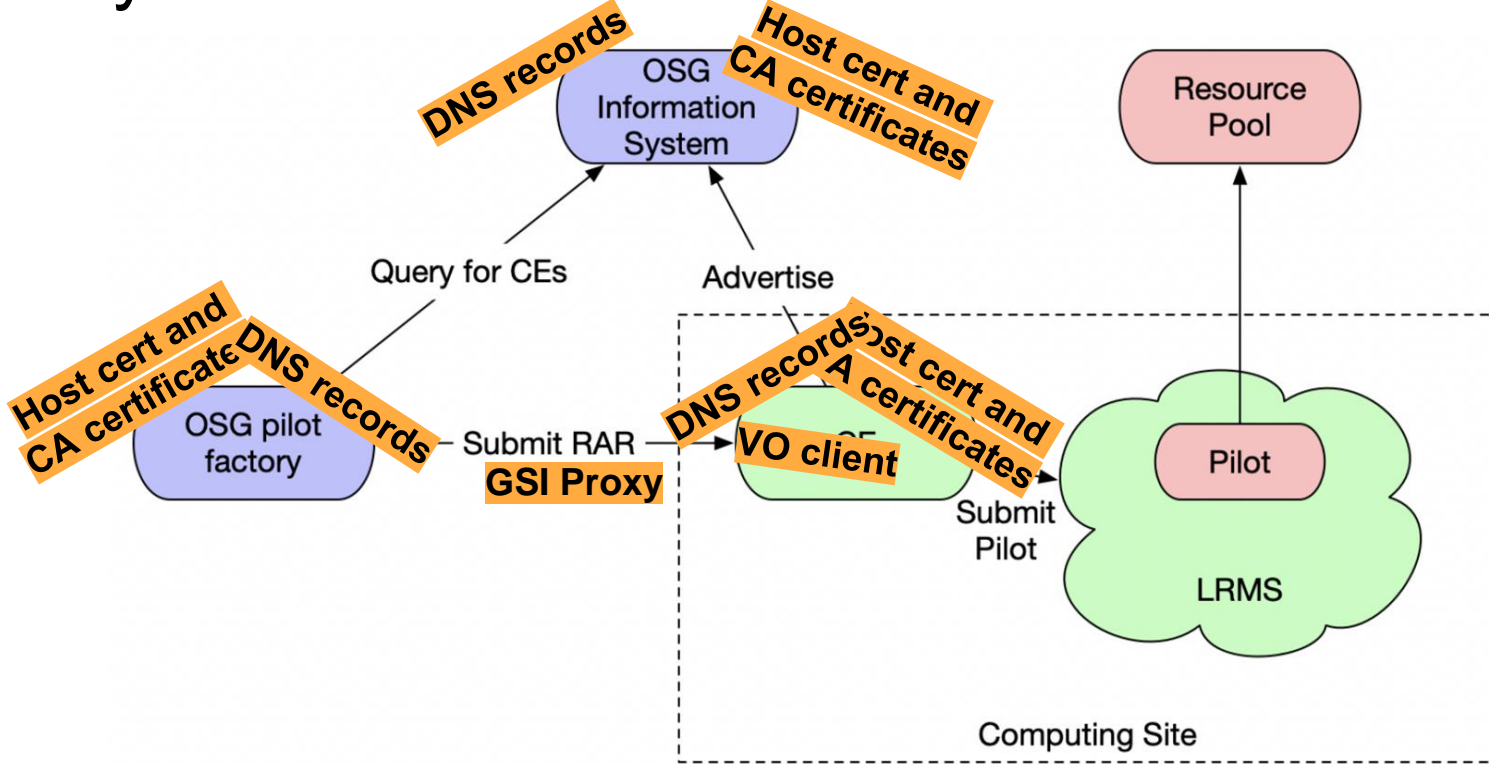
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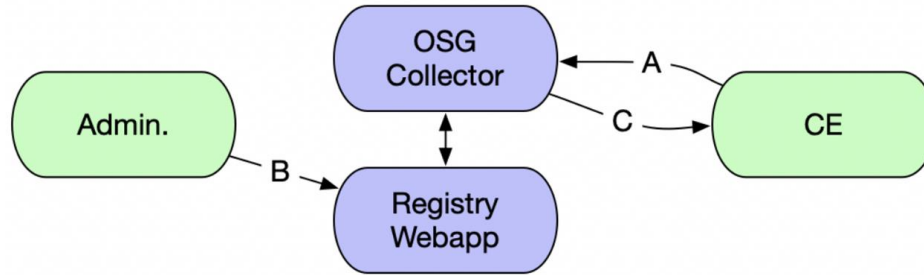
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# Re-imagining Grid Trust: HTCondor-CE Registry



Establishing trust without host or CA certificates (or even a public IP!):

- 0.** Admin registers new CE in a grid service + contact database (approved by grid operators)
- A.** Admin runs command from the CE to start registration flow, gets Registry URL
- B.** Admin visits Registry URL to validate the registration; HTCondor-CE Registry verifies admin identity and cross-checks identity + request with database in **0**.
- C.** Upon validation, the HTCondor-CE Central Collector issues an IDTOKEN for the HTCondor-CE

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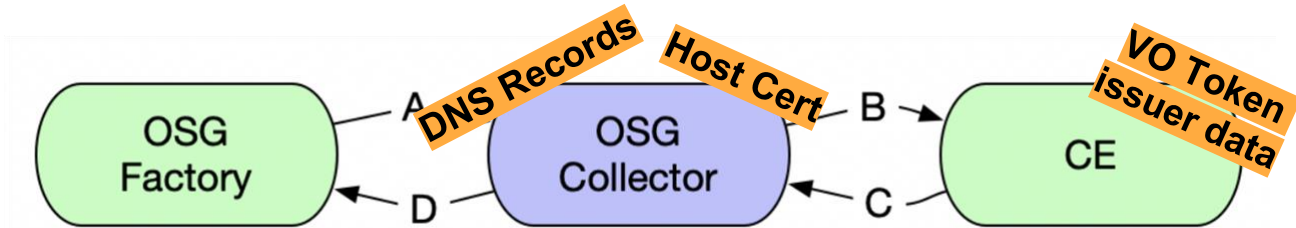


Using the HTCondor-CE Central Collector as a trusted intermediary, a pilot job factory will exchange a **VO SciToken/WLCG Token** with the CE (**A. + B.**) receiving an **IDTOKEN** in response (**C. + D.**)

Resultant **IDTOKEN** is narrowly scoped to job submission from this factory on behalf of the original VO to this CE!



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# Improved Job Router Configuration Syntax

- HTCondor-CE uses the old job transform style for Job Router configuration
- Old-style evaluation order of ClassAd verbs is limiting and confusing!
- HTCondor-CE will use the new style transform available in HTCondor 9.0
- New style transforms have many more features (see TJ's talk yesterday)!

## **New Job transform syntax in 9.0**

Native syntax is similar to config/submit syntax

- Statements evaluated in declaration order
- Temporary variables
- If/then/else
- Rename and Delete by attribute name pattern

Transforms are converted from ClassAd syntax on load