

Maintaining Individual Traceability in Shared Project Accounts with CEDPS/VDT Tools

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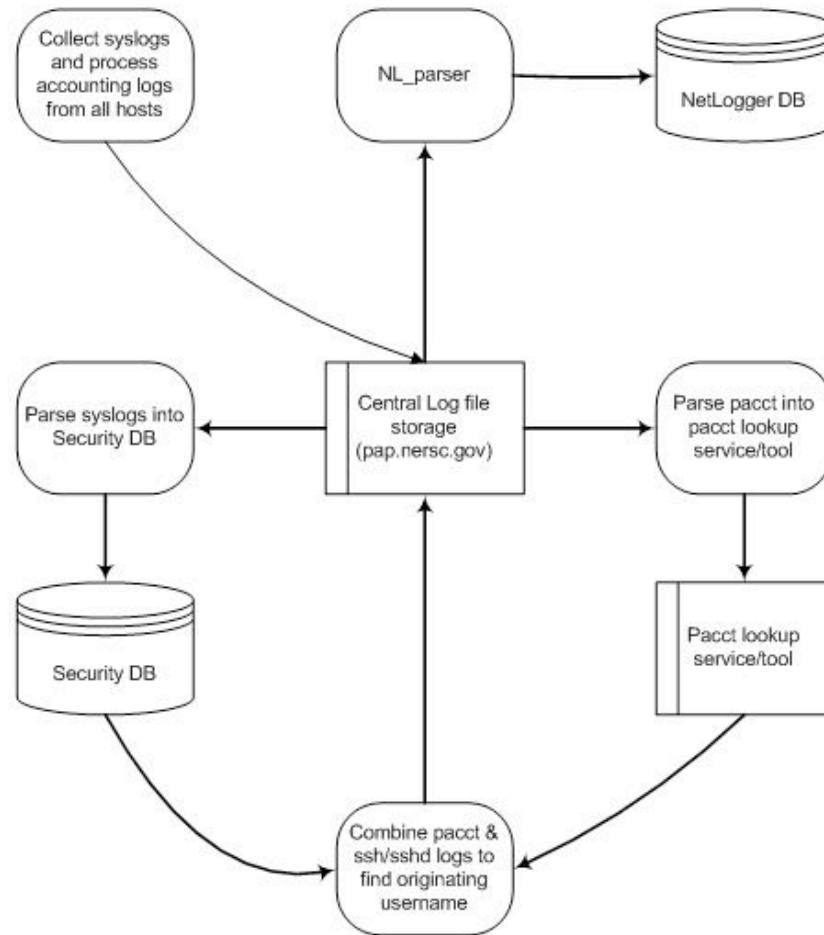
Motivation for Project Accounts at NERSC

- Analogous to OSG group accounts
- Needed by scientific groups for collaborative computing
- Jobs and data owned by common UNIX user
- Allow multiple users to share files and manage jobs,
 - ... without relying on group UNIX permissions,
 - ... while maintaining **individual accountability**
- Built around standard OSG/VDT grid tools
 - Netlogger
 - GSISSH
 - GridFTP/GRAM
 - MyProxy

Project Account Implementation

- Use grid certificates to track “real” user performing a given operation
 - DOE and NIST guidelines require individual level traceability for actions on NERSC systems
- Limit access to project accounts to grid interfaces (GSISSH, GridFTP, WS-GRAM)
- Scrape log and accounting files on the system to track process tree
 - Parent Process ID logs (To track child processes)
 - GSISSH/SSH logs
 - GridFTP logs
 - WS-GRAM logs
 - PBS/SGE/Loadleveler job accounting records
- Feed logs into netlogger to reconcile job/file information with original user
 - Query database to return the real user associated with a given action

Project Accounting Project



Process Flow

Version 0.1

11/6/2008
