

Pilot Log Anonymization in GlideinMonitor

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Introduction

- GlideinWMS is a pilot-based resource provisioning tool for distributed High Throughput Computing
- Provides reliable and uniform virtual clusters to run scientific computations (analysis, simulations, reconstructions etc.)
 - Provisions computers from many sources (local clusters, Grid, Cloud, Supercomputers)

GlideinMonitor

- Web application to view GlideinWMS's log files
- User interface tool
- Useful for searches and decoding log content
- Contains an efficient, managed archive of log files

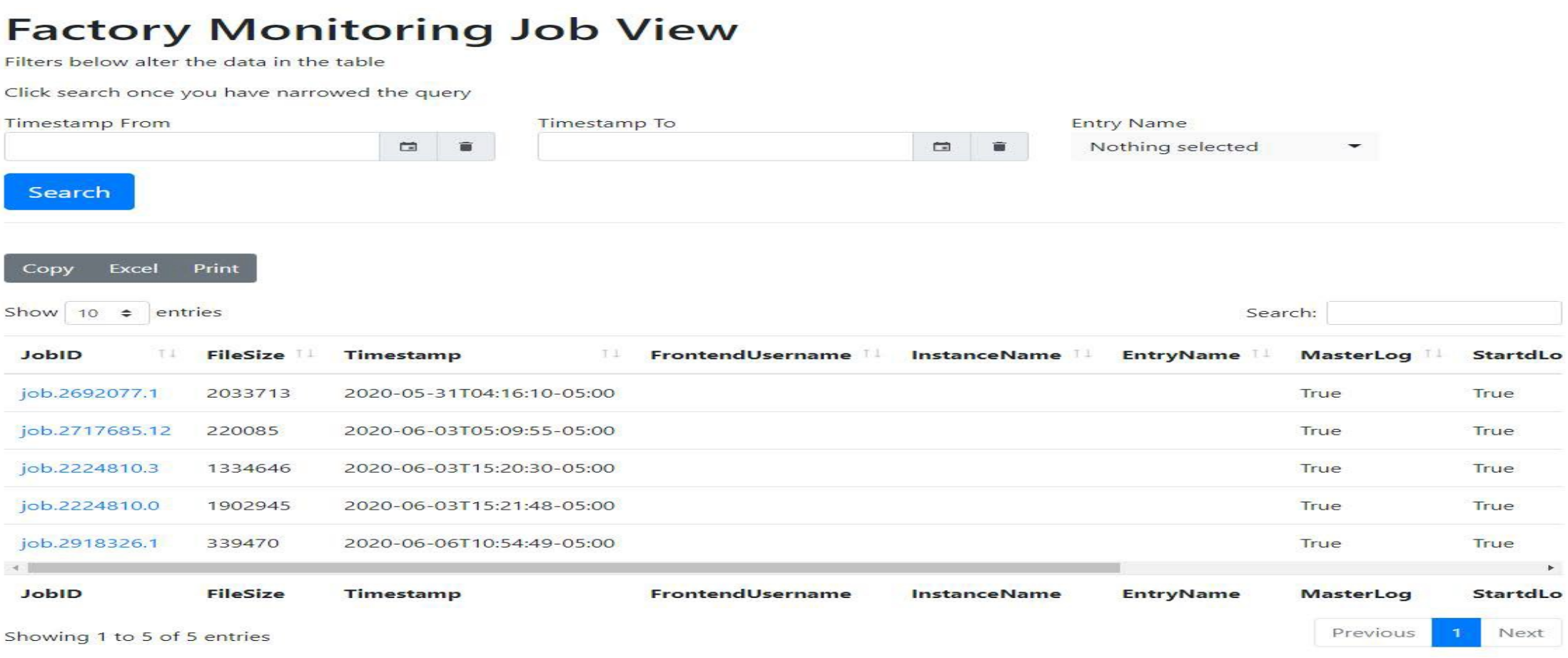


Figure 1 – GlideinMonitor Homescreen

Problem

Log files contain sensitive information that makes the logs less secure and decreases the ease of distribution amongst developers.

Objective

Create a script that:

- Locates the job submitter's IP Address
- Locates any identifiers of the job submitter
- Filters those values with non-identifiable information

In order to:

- Protect User Information
- Allow easier distribution to developers

Methods

Identified what the personal information was and then cross-referenced files to ensure there was a consistent reference for this information in order to search and retrieve it.

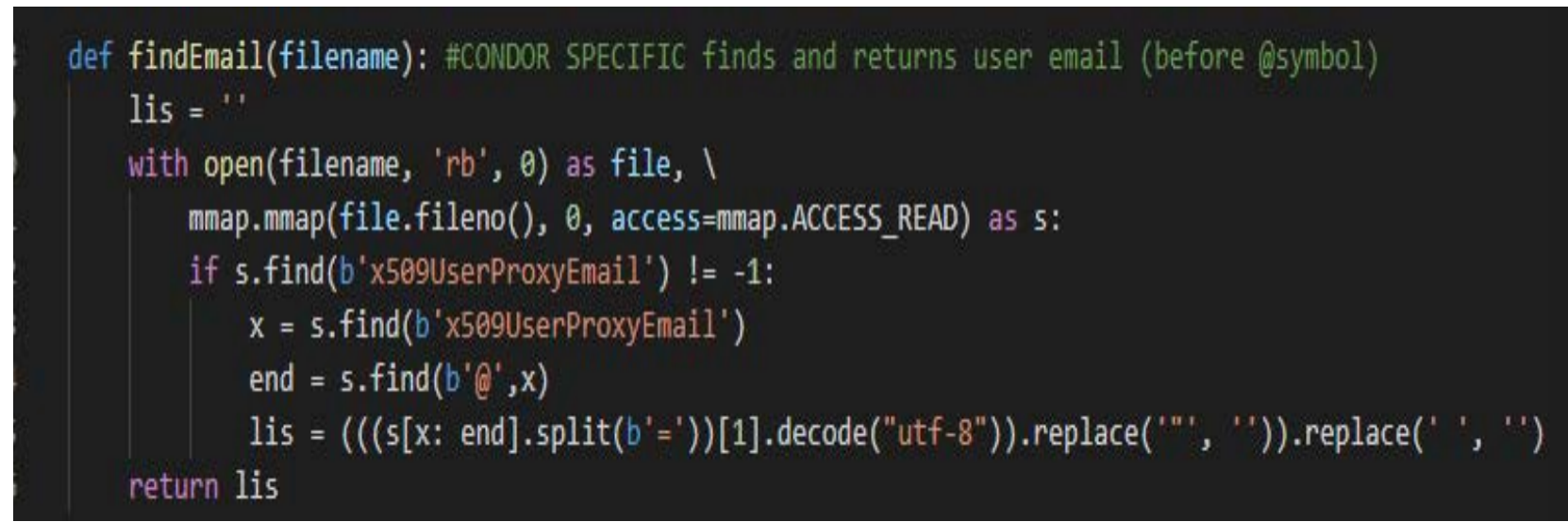


Figure 2 – Email Identifier Script

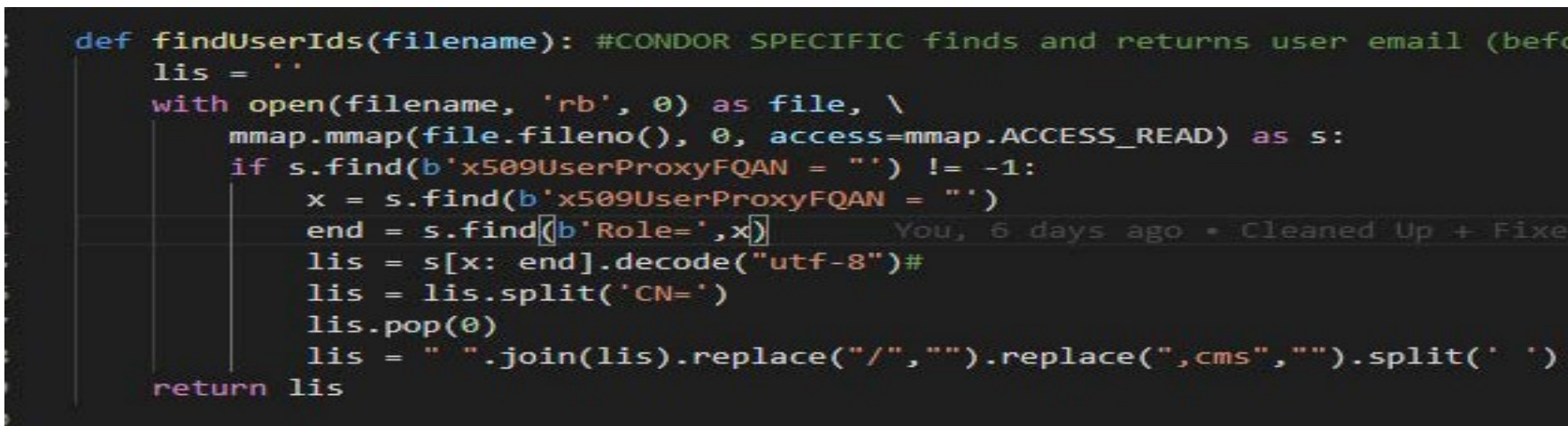


Figure 3 – User Information Identifier Script

Created a method to replace this information and followed software engineering standards: added docstrings and unit tests to insure clarity and quality

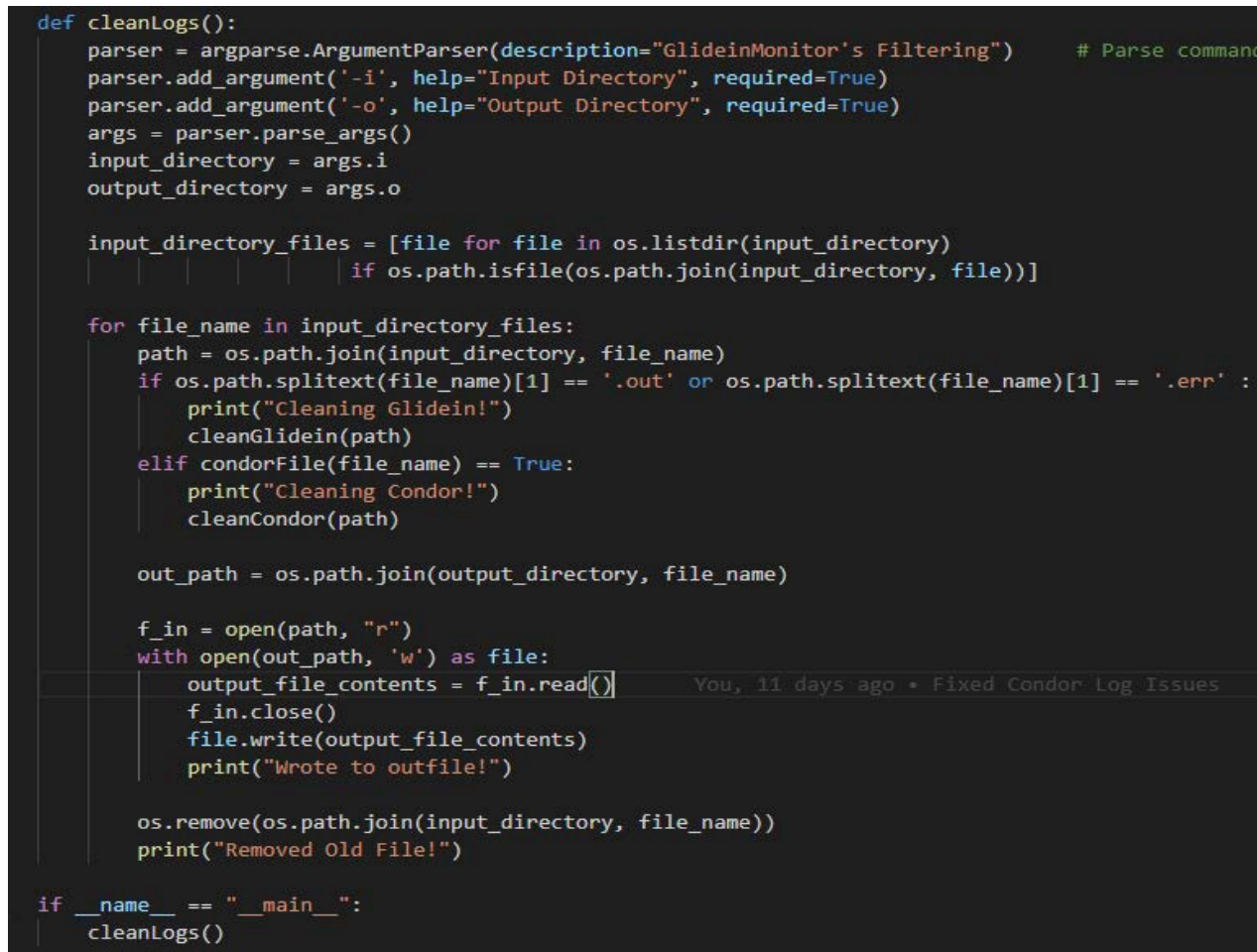


Figure 4 – Main Filtering Method



Figure 5 – Glidein Unit Test

Results

- Filtered logs contain no personal identifiers
- Script tested individually
- Script integrated into GlideinMonitor and included in RPM release

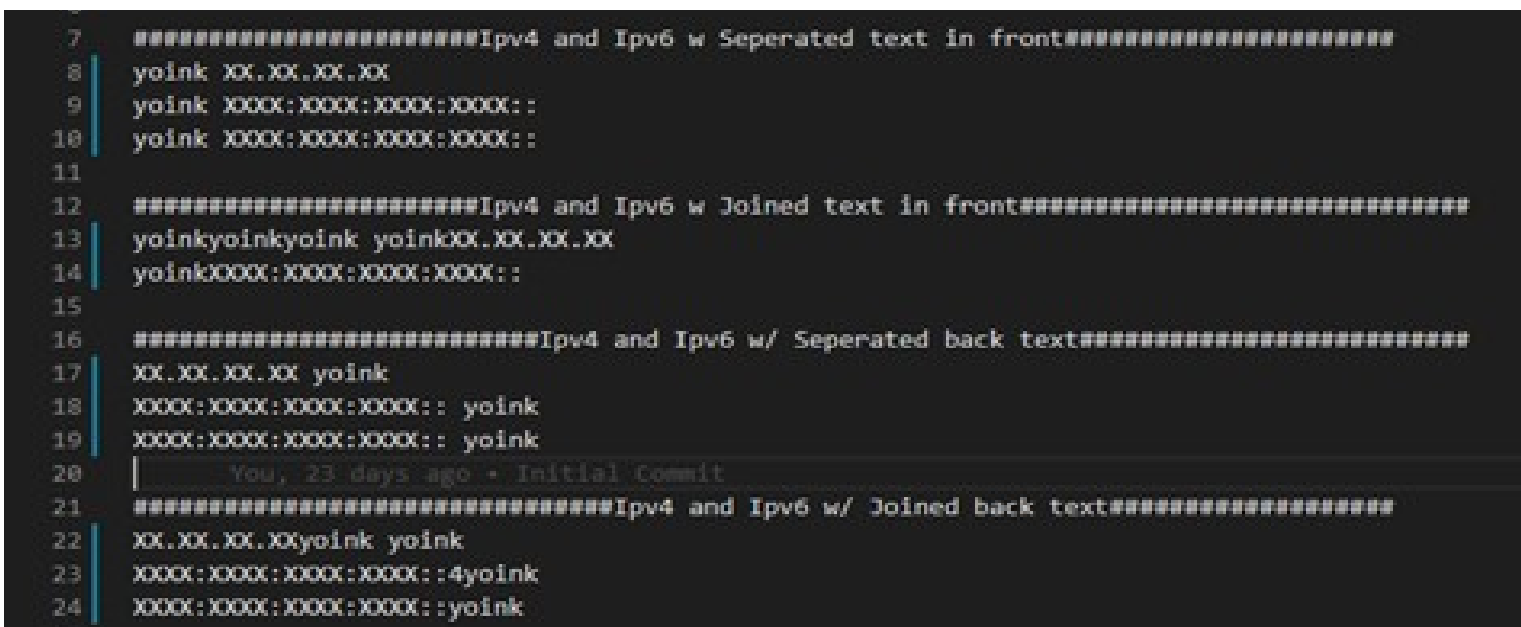


Figure 6 – Filtered Test File

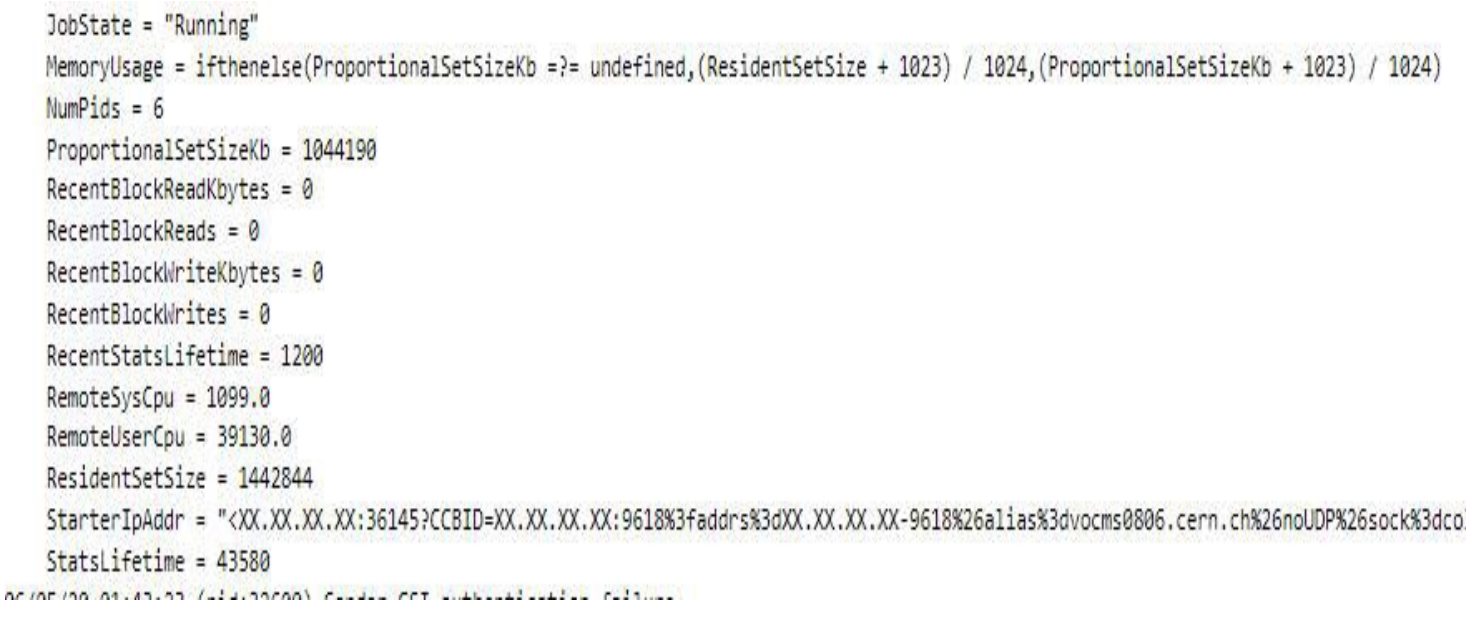


Figure 7 – Filtered IP Address in Log File

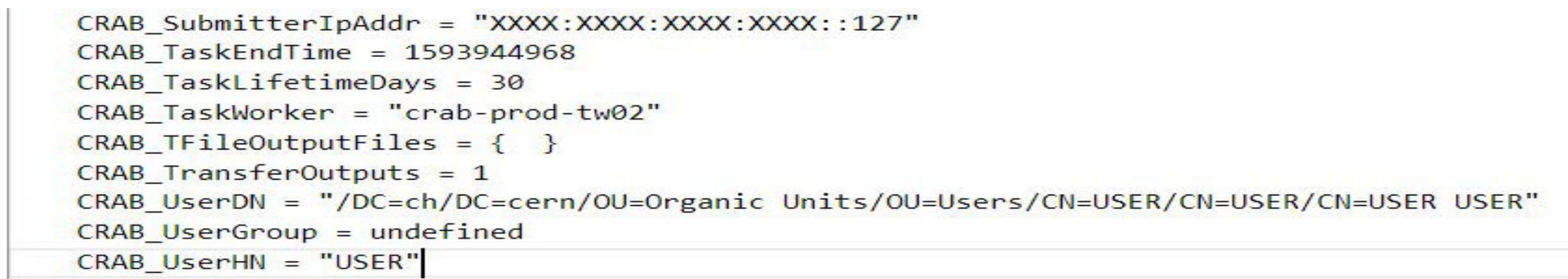


Figure 8 – Filtered User Identifiers in Log File

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