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# fix: exclude JWT token from workload repr to prevent log exposure #62964

Merged [kaxil](#) merged 14 commits into [apache:main](#) from [SibtainOcn:fix/redact-token-from-...](#) on Mar 7

[Conversation](#) 18 [Commits](#) 14 [Checks](#) 73 [Files changed](#) 3



**SibtainOcn** commented on Mar 5 • edited by eladkal

Contributor

## What

Prevents JWT tokens from leaking into task logs by setting `repr=False` on the `token` field in `BaseWorkloadSchema`.

Closes: [#62428](#)

Closes: [#62773](#)

## Why

When workload objects are logged (e.g. `log.info('Executing workload', workload=workload)` in `execute_workload.py`), Pydantic's auto-generated `__repr__` includes all fields — including the raw JWT token. This is a security concern since tokens grant API access and should never appear in log output.

The log output currently looks like:

```
ExecuteTask(token='eyJhbGciOi...full_token_here', ti=TaskInstance(...), ...)
```

## How

Uses Pydantic's built-in `Field(repr=False)` on the `token` field in `BaseWorkloadSchema` (the base class for all workload DTOs). This:

1. **Excludes** the token from `repr()` / `str()` output — so it never appears in logs
2. **Preserves** full access via `workload.token` — no functional change

3. **Fixes all executors** at the model level — KubernetesExecutor, CeleryExecutor, ECS, etc.

After the fix, log output shows:

```
ExecuteTask(ti=TaskInstance(...), dag_rel_path=..., type='ExecuteTask')
```

## Comparison with #62782

PR [#62782](#) takes a different approach: it modifies the logging call sites to log individual fields and adds a structlog regex redactor. Our approach fixes the **root cause** at the model level (1 line change vs 4 files), ensuring the token is hidden from repr regardless of where or how the workload object is logged.

Both approaches are valid and complementary — `Field(repr=False)` prevents the leak at the source, while a structlog redactor provides defense-in-depth.



## Changes

- `airflow-core/src/airflow/executors/workloads/base.py` : Add `Field` import; set `repr=False` on `token` field
- `airflow-core/tests/unit/executors/test_workloads.py` : Add regression test verifying token is excluded from repr
- `airflow-core/newsfragments/62428.bugfix.rst` : Changelog entry

## Testing

- Added unit test `test_token_excluded_from_workload_repr` that creates an `ExecuteTask` with a fake JWT and asserts `repr()` does not contain it
- Verified locally with Pydantic 2.12.5

  [fix: exclude JWT token from workload repr to prevent log exposure](#)   `faa0c0e`

  SibtainOcn requested review from [XD-DENG](#), [ashb](#), [dheerajturaga](#), [hussein-awala](#), [o-nikolas](#) and [pierrejeambrun](#) as [code owners last month](#)

**boring-cyborg**  commented on [Mar 5](#)

Congratulations on your first Pull Request and welcome to the Apache Airflow community! If you have any issues or are unsure about anything please check our Contributors' Guide (<https://github.com/apache/airflow/blob/main/contributing-docs/README.rst>)  
Here are some useful points:


- Pay attention to the quality of your code (ruff, mypy and type annotations). Our [prek-hooks](#) will help you with that.
- In case of a new feature add useful documentation (in docstrings or in `docs/` directory). Adding a new operator? Check this short [guide](#) Consider adding an example DAG that shows how users should use it.
- Consider using [Breeze environment](#) for testing locally, it's a heavy docker but it ships with a working Airflow and a lot of integrations.
- Be patient and persistent. It might take some time to get a review or get the final approval from Committers.
- Please follow [ASF Code of Conduct](#) for all communication including (but not limited to) comments on Pull Requests, Mailing list and Slack.
- Be sure to read the [Airflow Coding style](#).
- Always keep your Pull Requests rebased, otherwise your build might fail due to changes not related to your commits.

Apache Airflow is a community-driven project and together we are making it better 🚀.

In case of doubts contact the developers at:

Mailing List: [dev@airflow.apache.org](mailto:dev@airflow.apache.org)

Slack: <https://s.apache.org/airflow-slack>

  **boring-cyborg** (bot) added the `area:Executors-core` label on Mar 5

 **kaxil** reviewed on Mar 5

[View reviewed changes](#)

> `airflow-core/src/airflow/executors/workloads/base.py`

 Show resolved

 **kaxil** reviewed on Mar 5

[View reviewed changes](#)

> `airflow-core/tests/unit/executors/test_workloads.py`

`Outdated`

 Show resolved

 **kaxil** requested a review from **Copilot** last month

 **kaxil** approved these changes on Mar 5

[View reviewed changes](#)


 **kaxil** added this to the **Airflow 3.2.0** milestone [on Mar 5](#)

 **Copilot** [started reviewing](#) on behalf of **kaxil** [last month](#)

[View session](#)

 **Copilot** AI reviewed [on Mar 5](#)

[View reviewed changes](#)

 **Copilot** AI left a comment

[Contributor](#)

## Pull request overview

This PR fixes a security issue where JWT tokens were being exposed in task logs via Pydantic's auto-generated `__repr__` output. When workload objects are logged (e.g., `log.info("Executing workload", workload=workload)`), the full JWT token was visible in structured log output. The fix uses Pydantic's `Field(repr=False)` on the `token` field in `BaseWorkloadSchema`, the base class for all workload DTOs.

### Changes:

- Set `repr=False` on the `token` field in `BaseWorkloadSchema` to prevent JWT tokens from appearing in `repr/str` output
- Added a regression test to verify the token is excluded from `repr()` while remaining accessible as an attribute
- Added a changelog newsfragment for the bugfix

### Reviewed changes

Copilot reviewed 3 out of 3 changed files in this pull request and generated 2 comments.

File	Description
<code>airflow-core/src/airflow/executors/workloads/base.py</code>	Added <code>Field</code> import and set <code>repr=False</code> on the <code>token</code> field in <code>BaseWorkloadSchema</code>
<code>airflow-core/tests/unit/executors/test_workloads.py</code>	Added regression test <code>test_token_excluded_from_workload_repr</code> verifying token exclusion from <code>repr</code>
<code>airflow-core/newsfragments/62428.bugfix.rst</code>	Changelog entry for the bugfix

You can also share your feedback on Copilot code review. [Take the survey.](#)



> airflow-core/tests/unit/executors/test\_workloads.py Outdated Show resolved

> airflow-core/tests/unit/executors/test\_workloads.py Outdated Show resolved

**SibtainOcn** added 2 commits [last month](#)

[fix: move imports to top of file and simplify docstring per review](#) ec00988

[Merge branch 'main' into fix/redact-token-from-workload-repr](#) 498bb4d

**eladkal** previously requested changes [on Mar 5](#)

[View reviewed changes](#)

> test\_fix\_verification.py Outdated Show resolved

**SibtainOcn** added 2 commits [last month](#)

[fix: remove local verification script from PR](#) fe488e2

[Merge branch 'fix/redact-token-from-workload-repr' of https://github...](#) 567aeec

**SibtainOcn** requested a review from **eladkal** [last month](#)

[Merge branch 'main' into fix/redact-token-from-workload-repr](#) 42b22e2

**XD-DENG** requested changes [on Mar 6](#)

[View reviewed changes](#)

> airflow-core/newsfragments/62964.bugfix.rst Show resolved

 **SibtainOcn** added 2 commits [last month](#)

  [fix: rename newsfragment to use PR number per review](#)  [5d341f8](#)

  [Merge branch 'fix/redact-token-from-workload-repr' of https://github...](#)  [9496980](#)

 **XD-DENG** approved these changes [on Mar 6](#)

[View reviewed changes](#)

  [style: fix assert formatting to match Airflow linter](#)  [9c7ed28](#)

 **tirkarathi** approved these changes [on Mar 6](#)

[View reviewed changes](#)

  **XD-DENG** mentioned this pull request [on Mar 6](#)

**[Add CI workflow to validate newsfragment PR numbers #62975](#)**

 Merged

 1 task

6 hidden items  
[Load more...](#)

  **eladkal** added the type:bug-fix label [on Mar 6](#)

  **eladkal** mentioned this pull request [on Mar 6](#)

**[Fix JWT tokens appearing in task logs #62782](#)**

 Closed

 1 task

  **eladkal** dismissed their [stale review](#) [last month](#)

stale

 **eladkal** added the **backport-to-v3-1-test** label on Mar 6

 **eladkal** modified the milestones: **Airflow 3.2.0**, **Airflow 3.1.9** on Mar 6

 **SibtainOcn** added 2 commits last month

  Merge branch 'main' into fix/redact-token-from-workload-repr 5a75072

  Merge branch 'main' into fix/redact-token-from-workload-repr a6c9985

**SibtainOcn** commented on Mar 6

Contributor Author

Hey, all the review comments have been addressed and pushed. Just waiting on CI workflow approval whenever someone gets a chance.

 **SibtainOcn** added 3 commits last month

  style: remove trailing blank lines per pre-commit hook 1629990

  Merge branch 'fix/redact-token-from-workload-repr' of <https://github.com/apache/airflow> 3c975cb

  style: remove trailing blank line to pass static checks 46bb29f

**SibtainOcn** commented on Mar 6

Contributor Author

I done fix for the trailing blank line that keeps failing the static checks. Verified locally with pre-commit and trailing-whitespace, end-of-file checks pass now. Hope this goes through, if it still fails, could use some help understanding what the hook expects ?

 1



**kaxil** merged commit **b196cf3** into `apache:main` on Mar 7

74 checks passed

[View details](#)

**boring-cyborg** bot commented on Mar 7

Awesome work, congrats on your first merged pull request! You are invited to check our [Issue Tracker](#) for additional contributions.

**github-actions** bot commented on Mar 7

Contributor

### Backport failed to create: v3-1-test. View the failure log [Run details](#)

Note: As of [Merging PRs targeted for Airflow 3.X](#)

the committer who merges the PR is responsible for backporting the PRs that are bug fixes (generally speaking) to the maintenance branches.

In matter of doubt please ask in [#release-management](#) Slack channel.

Status	Branch	Result
✘	v3-1-test	Commit <b>b196cf3</b>

You can attempt to backport this manually by running:

```
cherry_picker b196cf3 v3-1-test
```



This should apply the commit to the v3-1-test branch and leave the commit in conflict state marking the files that need manual conflict resolution.

After you have resolved the conflicts, you can continue the backport process by running:

```
cherry_picker --continue
```



If you don't have cherry-picker installed, see the [installation guide](#).



**SibtainOcn** deleted the `fix/redact-token-from-workload-repr` branch [last month](#)

Member

**pierrejeambrun** commented [on Mar 9](#)**@kaxil** needs manual backport

Member

**kaxil** commented [on Mar 9](#)**@kaxil** needs manual backport**@vatsrahul1001** Can you do it?**vatsrahul1001** pushed a commit that referenced this pull request [on Mar 11](#)fix: Exclude JWT token from workload repr to prevent log exposure ([#6...](#)) [d336be1](#)

Contributor

**vatsrahul1001** commented [on Mar 11](#)**@kaxil** needs manual backport**@vatsrahul1001** Can you do it?backport PR [#63328](#)**vatsrahul1001** added a commit that referenced this pull request [on Mar 11](#)fix: Exclude JWT token from workload repr to prevent log exposure ([#6...](#)) [56c28a5](#)**dominikhei** pushed a commit to dominikhei/airflow that referenced this pull request [on Mar 11](#)fix: Exclude JWT token from workload repr to prevent log exposure ([ap...](#)) [6168ee4](#)**vatsrahul1001** added a commit that referenced this pull request [3 weeks ago](#)fix: Exclude JWT token from workload repr to prevent log exposure ([#6...](#)) [bd3d855](#)**pierrejeambrun** modified the milestones: **Airflow 3.1.9**, **Airflow 3.2.0** [last week](#)**pierrejeambrun** mentioned this pull request [last week](#)


## JWT tokens appearing in task logs #62428

 Closed

 2 tasks

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### Reviewers

-  **Copilot**


-  **tirkarthi**


-  **kaxil**


-  **XD-DENG**


-  **ashb**

 
-  **o-nikolas**

 
-  **pierrejeambrun**

 
-  **hussein-awala**

 
-  **dheerajturaga**

 
-  **eladkal**



### Assignees

No one assigned

### Labels

- area:Executors-core
- type:bug-fix

### Projects

None yet

### Milestone

Airflow 3.2.0

### Development

Successfully merging this pull request may close these issues.

- ✔ JWT tokens appearing in logs
  - ✔ JWT tokens appearing in task logs
- 

8 participants

