

Debug Report: Airflow Composer STS Import Failure

Issue Summary:

Your DAG using ``CloudDataTransferServiceCreateJobOperator`` failed in Cloud Composer (Airflow 2.5.3, provider 10.1.0) with this error:

```
ModuleNotFoundError: No module named 'airflow.providers.amazon'
```

Root Cause:

The Google provider package (``apache-airflow-providers-google==10.1.0``) internally tries to import Amazon provider modules like:

```
from airflow.providers.amazon.aws.hooks.base_aws import AwsBaseHook
```

Even if you're not using AWS services, these imports are baked into the Google STS module.

Why Amazon Provider is Needed:

Some Storage Transfer Service operations support AWS S3 as a source, so Google's operator has conditional code paths involving AWS hooks.

Composer attempts to import all modules at DAG parse time, leading to failures if Amazon provider isn't installed.

Fix:

Update your Composer environment's ``requirements.txt`` to include both:

apache-airflow-providers-google==10.1.0

apache-airflow-providers-amazon==6.1.0

Then save and wait for Composer to rebuild (typically 15-30 mins). After that, your DAGs using STS should load without error.

Additional Notes:

- This is not a bug, but a dependency side-effect of modular Airflow providers.
- Your DAG was not at fault; it's due to Composer not finding a required module.

Recommended Next Step:

1. Apply the updated `requirements.txt`.
2. Wait for Composer rebuild.
3. Re-run your debug DAG (`debug_check_sts_module`).
4. Confirm the message: "? Module is available and import worked."

Result:

This setup will unblock your GCS to GCS transfers using Storage Transfer Service via Airflow DAGs in Cloud Composer.