**AWX Job Logs Backup**

AWX shows logs when a job runs. These logs help us check what happened in the job.

If someone deletes a job in AWX, the log is also deleted.

These logs are not saved outside by default.

We need to save these logs in a safe place.

This helps in auditing, solving errors, and checking what was done in the past.

AWX stores job execution logs (stdout) which are useful for auditing and debugging.

If a job is deleted from AWX, the associated logs are also lost.

There is no native long-term backup mechanism for these logs.

A solution is needed to preserve logs even after deletion for audit and compliance.

The solution should be secure, automated, cost-effective, and easy to maintain.

**What Are AWX Job Logs?**

When a playbook runs in AWX, it shows output step by step.

These steps and results are called job logs (stdout).

It includes which task ran, what happened, and if it failed or passed.

It is only visible in the UI unless we export it.

So, we need to export and store it safely.

**Key Requirements**

Save logs where no one can delete them easily.

Keep them outside AWX, like in AWS S3.

Keep logs for a long time (months/years).

Automatically do this every day.

Name the logs clearly with job ID and date.

Options Available for AWX Log Backup

I have checked what options are available to get the log backup. Below options are viable:

**Implemented Solution – AWS S3 (API-Based Script)**

Export job logs using AWX REST API.

Upload logs to an S3 bucket daily using a Python script.

Each log file is saved with job ID, name, and timestamp.

S3 offers high durability, low cost, and strong security features.

Even if logs are deleted from AWX, they remain in S3.

This method is automated using a cron job and requires minimal maintenance.

**Steps We Followed**

Created an S3 bucket with versioning and encryption.

Took an API token from AWX.

Wrote a Python script to fetch logs using API.

Saved logs locally with job ID, job name, and date.

Uploaded them to S3 bucket.

Scheduled it to run every night using cron job.

📁 S3 Folder Example

s3://awx-job-logs-backup/logs/2025-07-28/

├── job\_123\_backup\_config\_2025-07-28T01:02.log

├── job\_124\_user\_provisioning\_2025-07-28T01:04.log

**Summary s3 method:**

We are saving AWX job logs to AWS S3 every day.

Logs will be safe even if jobs are removed from AWX.

This method is simple, low-cost, and safe.

We recommend using this for long-term backup.

Other methods are harder or need extra tools.

This is best when only S3 is needed.

**Option 2: Local Filesystem or NFS**

Save logs to local disk or NFS mount.

Easy to set up with cron jobs.

Risk of data loss due to disk failure or manual deletion.

Suitable for internal or development use only.

Requires additional backup measures.

**Option 3: Filebeat or Fluentd to S3/Log Server**

Use agents to forward logs in real-time to S3 or a log server.

Suitable if log collection infrastructure already exists.

Needs additional setup and maintenance.

May include unwanted logs unless carefully filtered.

Adds unnecessary complexity for simple AWX log backups.

**Option 4: AWX Log Aggregator (ELK, Splunk)**

AWX can push logs to external aggregators like ELK or Splunk.

Useful for enterprise-level log analysis and dashboards.

Requires managing external log servers.

Logs are not in simple file format.

Not ideal when only backup to S3 is needed.

**Option 5: Database Dump (PostgreSQL)**

Export AWX job logs from PostgreSQL database tables.

Good for retaining full job history and metadata.

Logs are not in plain-text and require parsing.

Best for full-system backup rather than log access.

Not recommended for daily readable log backup.

**Option 6: Git-Based Log Backup**

Export logs and store in a private Git repository.

Offers version control and history tracking.

Suitable for environments with few jobs.

Git isn't optimized for large log volumes.

Can be used as a secondary backup option.

**Final Recommendation**

The API-based AWS S3 solution is the best choice among all options.

It provides secure, durable, and cost-effective log storage.

Logs are stored even if jobs are deleted from AWX.

It is easy to automate and maintain.

Other options are either complex, unreliable, or not suitable for long-term storage.