

Case Study: Automating EBS Snapshot Lifecycle Management with EBS Snapshot Expiry Manager

Customer Overview

A mid-sized **SaaS company** operating across multiple AWS regions was facing growing challenges with **EBS snapshot accumulation**. Over time, hundreds of unused snapshots remained active in their environment, leading to high storage costs, inconsistent retention practices, and compliance risks.

The IT and Cloud Operations teams were manually reviewing snapshots monthly, a time-consuming and error-prone process.

Challenges

The customer identified several key operational and compliance issues:

- **No Automated Retention Policy:** Snapshots across environments (dev, staging, production) had inconsistent or no expiry timelines.
 - **Escalating Storage Costs:** Legacy snapshots occupied terabytes of storage, with costs rising every month.
 - **Manual Cleanup Effort:** Engineers spent 6–8 hours per month cleaning up stale snapshots.
 - **Limited Audit Visibility:** There was no centralized report or audit trail showing snapshot age or deletion history.
 - **Compliance Risks:** Data retention policies for SOC2 and ISO 27001 were not being consistently enforced.
-

Solution Implementation

Before You Solutions deployed the **EBS Snapshot Expiry Manager**, a fully automated, event-driven solution built using AWS-native services and Terraform.

Architecture Overview

- **AWS Lambda:** Scans all EBS snapshots daily across multiple regions.
- **Amazon EventBridge:** Triggers scheduled Lambda execution using cron expressions.
- **Amazon DynamoDB:** Stores snapshot metadata, deletion logs, and estimated cost savings.
- **Amazon Glacier (Optional):** Archives long-term backups before deletion.

- **Gmail SMTP Integration:** Sends daily and weekly summary reports to the FinOps and Security teams.
- **Terraform:** Deploys infrastructure as code for reproducibility and easy maintenance.

Configuration Summary

Parameter	Configuration
Retention Period	90 days
Regions Scanned	ap-south-1, us-east-1
Auto Delete Mode	Enabled after initial 30-day monitoring period
Notification Email	finops@company.com
Estimated Monthly Cost	< \$2 USD

Outcomes and Metrics

Within 6 months of deployment, the organization achieved significant efficiency and cost improvements:

Metric	Before	After 6 Months
Total Snapshots	~1,000	~430
Monthly EBS Snapshot Cost	~\$420	~\$175
Manual Cleanup Time	~8 hrs/month	<1 hr/month
Compliance Audit Readiness	Low	Fully Automated Reports
Storage Efficiency	Poor	58% Improvement

The automation provided **over 60% cost savings** and reduced manual effort by **90%**, while enabling easy audit reporting through DynamoDB logs and Gmail reports.

Business Impact

- **Financial Savings:** Reduced monthly AWS storage spend by over \$250, with payback achieved in the first month.
- **Operational Efficiency:** Freed up engineering hours for higher-value tasks.

- **Governance & Compliance:** Improved adherence to retention and audit policies.
 - **Scalability:** The system supports additional AWS accounts and regions with no code changes.
 - **Reliability:** Fully serverless and managed, with near-zero maintenance overhead.
-

Customer Feedback

“Before You Solutions helped us automate a problem we’d ignored for years. Our cloud costs dropped overnight, and we finally have visibility into snapshot usage and compliance. It’s simple, secure, and just works.”

— Cloud Operations Manager, SaaS Company

Key Takeaways

- Real-time automation for EBS snapshot lifecycle management
 - End-to-end compliance and audit visibility
 - Simple, Terraform-based deployment in under 30 minutes
 - Significant cost and time savings
 - Aligned with AWS Well-Architected Framework (Cost Optimization & Operational Excellence pillars)
-

About the Solution

EBS Snapshot Expiry Manager is an AWS-native automation system developed by **Before You Solutions**.

It provides lifecycle control for EBS snapshots using **EventBridge**, **Lambda**, **DynamoDB**, and **Secrets Manager**, enabling customers to manage retention policies, automate cleanup, and maintain cost-efficient infrastructure.

 [GitHub Repository](#)

 sumanth@beforeyousolutions.com