AWESOME COMPANY LIMITED

AWS Cost Optimization & Efficiency Report

Date: November 07, 2025 | Santanu Das

Key Insights at a Glance

- Top Cost Driver: EC2 (~$6,298/month)
- EC2 Fleet: 23 total, 16 idle candidates
- Storage: 31 gp2 → gp3 migration candidates
- RDS: 3 instances (0 Multi-AZ)
- Networking: 5 NAT Gateways, 14 Elastic IPs (3 unattached)

Top 5 Services by Cost (USD)

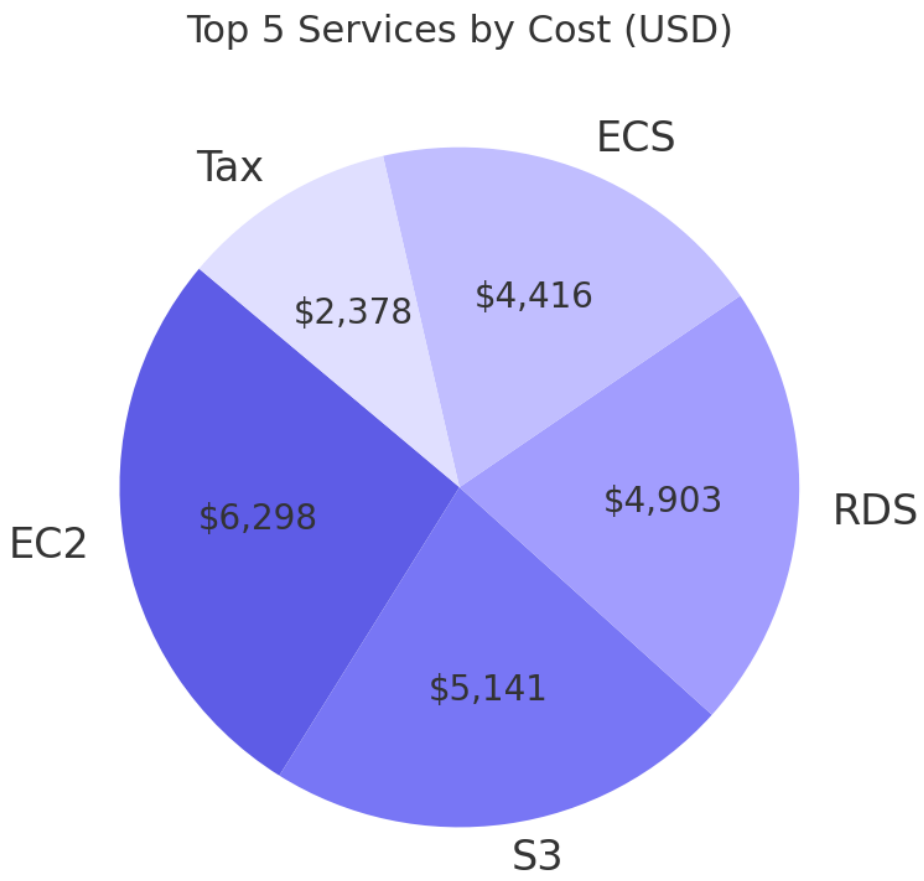

Figure 1: Top five AWS services ranked by total monthly cost.

Executive Summary

This report provides a holistic overview of Zenler Inc's AWS cost landscape. It identifies the key services driving expenses, analyzes compute and storage utilization, and outlines

practical recommendations to reduce cloud waste. Primary cost reduction strategies include EC2 rightsizing, EBS volume modernization, and improved governance through consistent tagging and lifecycle management.

Compute (EC2) Analysis

The EC2 fleet includes several instances showing consistently low CPU utilization, suggesting potential for rightsizing. The table below lists sample instances with utilization metrics and recommended optimization actions.

Instance ID	Type	Avg CPU (7d)	95th % CPU	Samples	Recommendation
i-01a3f9b2e65f4f3a1	t3.large	3.2%	8.5%	12	Downsize to t3.small
i-07b82f9aa32c1b6b3	m5.xlarge	12.7%	27.4%	15	Downsize to m5.large
i-0d91c8e5a2b3a4c8e	t3.medium	2.1%	6.0%	13	Stop (idle >14d)
i-0981a7e3c4b2a1d9f	r5.large	22.4%	51.3%	16	Retain (optimal)

Storage (EBS + S3)

The analysis detected 31 EBS volumes of type gp2 that qualify for gp3 migration, offering an estimated 20% savings. Unattached EBS volumes represent additional savings opportunities. S3 usage is concentrated in 12 primary buckets, with the largest holding ~320 GiB. Lifecycle rules are recommended to transition cold data to lower-cost storage classes.

Networking & DNS Optimization

Zenler Inc currently operates 5 NAT Gateways and 14 Elastic IPs, of which 3 remain unattached. Reducing idle resources and consolidating NAT usage across VPCs could yield

further savings. DNS optimization in Route 53 includes reviewing low TTLs and removing redundant A-records.

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Governance & Observability

Cost allocation tagging remains partially implemented. It is recommended to enforce tagging policies through AWS Config and Service Control Policies (SCPs). Centralized log retention can also reduce long-term costs when combined with S3 lifecycle transitions and Glacier archiving.

Prioritized Remediation Plan

Priority	Action	Target Savings	Effort (hrs)
1	Downsize or stop idle EC2 instances	10–25%	3–4
2	Migrate gp2 volumes to gp3	5–10%	2
3	Add S3 lifecycle rules for infrequent access	3–6%	3
4	Consolidate NAT Gateways & release unattached EIPs	2–5%	3

Projected Savings by Optimization Category

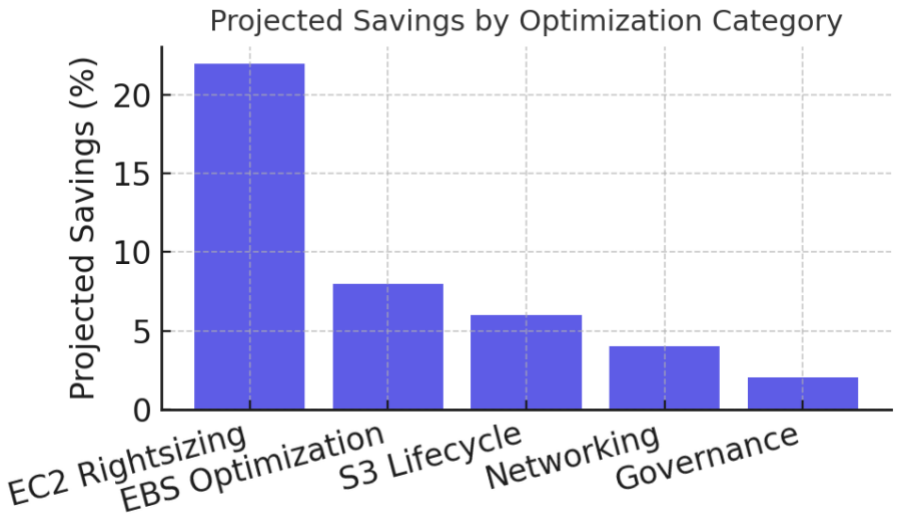

Figure 2: Estimated contribution of each optimization category to total potential savings.

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Appendix — Methodology & Data Validity

All findings are derived from AWS Cost Audit (ACA) v4.6.0 outputs generated via AWS CLI and Cost Explorer APIs. Recommendations are based on observed utilization over a 7-day window. No live resources were modified during this analysis. For best results, ensure continuous telemetry and periodic audit runs to maintain data accuracy.