Infrastructure Cost Analysis Report

Comprehensive Cloud Cost Audit & Optimization

Account Information

Account ID: 123456789012
Account Name: Demo Production Account
Cloud Provider: Amazon Web Services
Report Generated: October 15th 2025, 6:04:46 am
Report Period: Sep 15, 2025 - Oct 15, 2025

Cost Summary

$4,094.33	$4,046.27	$1,161.20	$125.06
This Month	Last Month	Last 7 Days	Yesterday

Report Scope

- Executive Summary
- Cost Breakdown Analysis
- Trend Analysis & Visualizations
- Resource Inventory

- Cost Optimization Recommendations

Executive Summary

Monthly Cost Trend

Your cloud spending has increased by **1.2%** compared to last month.

Top Cost Drivers

- Amazon RDS: $1,071.39 (26.2% of total)
- Amazon S3: $789.08 (19.3% of total)
- Amazon EBS: $403.30 (9.9% of total)
- Amazon EC2-Instance: $354.77 (8.7% of total)
- Amazon DynamoDB: $298.01 (7.3% of total)

Cost Anomalies

2 cost anomalies detected requiring attention.

Key Performance Indicators

$272.96
Avg Daily Spend
5
Active Services
N/A
Projected Monthly

Cost Breakdown Analysis

Period Comparison

Period	Total Cost	Change	Trend
This Month	$4,094.33	+1.2%	➡️
Last Month	$4,046.27	-	-
Last 7 Days	$1,161.20	+32.6%	↗️
Yesterday	$125.06	-	-

Service-Level Breakdown (This Month)

Service	Cost	Share	vs Last Month
Amazon RDS	$1,071.39	26.2%	+79.1%
Amazon S3	$789.08	19.3%	+750.8%
Amazon EBS	$403.30	9.9%	-48.6%
Amazon EC2-Instance	$354.77	8.7%	+74.7%
Amazon DynamoDB	$298.01	7.3%	-9.4%
AWS Lambda	$296.90	7.3%	+378.7%
AWS Data Transfer	$284.24	6.9%	+24.0%

Service	Cost	Share	vs Last Month
AWS Application Load Balancer	$272.88	6.7%	+709.5%
Amazon CloudWatch	$121.38	3.0%	-42.8%
Amazon Route 53	$70.52	1.7%	-55.2%
Amazon CloudFront	$44.22	1.1%	-92.5%
Amazon VPC	$34.91	0.9%	-41.2%
Amazon SES	$28.04	0.7%	-70.0%
Amazon ElastiCache	$24.69	0.6%	-95.9%

Resource Inventory

145
Total Resources
$3,890.50
Total Cost
us-east-1
Primary Region

Resources by Type

Resource Type	Count	Percentage
Compute	35	24.1%
Storage	28	19.3%
Database	12	8.3%
Network	25	17.2%
Security	18	12.4%
Serverless	15	10.3%
Container	8	5.5%
Analytics	4	2.8%

Cost Anomalies

2 cost anomalies have been detected during the report period. These represent significant deviations from expected spending patterns and require investigation.

October 13, 2025

CRITICAL
Expected Cost: $3,500.20
Actual Cost: $5,200.80
Deviation: +48.6%

Significant cost spike detected in EC2 Auto Scaling group due to unexpected traffic surge

October 08, 2025

LOW
Expected Cost: $3,200.50
Actual Cost: $2,800.30
Deviation: -12.5%

Lower than expected S3 costs due to successful data archiving policies

Cost Optimization Recommendations

Potential Savings: $952.35

4 optimization opportunities identified

Purchase EC2 Reserved Instances

HIGH LOW Effort

Based on your consistent EC2 usage patterns, purchasing Reserved Instances could save up to 30% on compute costs.

Potential Savings: **$450.30** (monthly)
30.0% reduction

Implementation Steps:

1. Analyze current EC2 usage patterns over the last 12 months
2. Purchase 1-year Reserved Instances for consistent workloads
3. Set up automated monitoring for RI utilization
4. Review and optimize instance sizing before purchasing RIs

Affected Resources:

- i-1234567890abcdef0
- i-0987654321fedcba0

ec2reserved-instancescost-optimization

Rightsize RDS Instances

MEDIUM MEDIUM Effort

Several RDS instances show low CPU utilization. Downsizing these instances could reduce costs without impacting performance.

Potential Savings: **$280.75** (monthly)
25.0% reduction

Implementation Steps:

1. Review RDS CloudWatch metrics for CPU, memory, and I/O utilization
2. Create RDS snapshots before making changes
3. Modify instance class during maintenance window
4. Monitor performance after changes for 1 week

Affected Resources:

- mydb-instance-1
- mydb-instance-2

rdsrightsizingdatabase-optimization

Implement S3 Intelligent Tiering

MEDIUM LOW Effort

Enable S3 Intelligent Tiering to automatically optimize storage costs based on access patterns.

Potential Savings: **$125.50** (monthly)
15.0% reduction

Implementation Steps:

1. Enable S3 Intelligent Tiering on identified buckets
2. Set up lifecycle policies for automatic transitions
3. Monitor cost impact over 3 months
4. Review and adjust policies based on access patterns

Affected Resources:

- s3-bucket-logs
- s3-bucket-backups

s3storage-optimizationintelligent-tiering

Optimize Lambda Memory Allocation

LOW HIGH Effort

Lambda functions are over-provisioned with memory. Optimizing memory allocation can reduce costs significantly.

Potential Savings: **$95.80** (monthly)
20.0% reduction

Implementation Steps:

1. Use AWS Lambda Power Tuning tool to find optimal memory settings
2. Test performance with different memory allocations
3. Update Lambda configurations incrementally
4. Set up monitoring for execution duration and cost metrics

Affected Resources:

- process-images-lambda
- data-processor-lambda

lambdaserverless-optimizationmemory-tuning

Appendix

Report Generation Details

Report Generated:	October 15th 2025, 6:04:46 am
Tool Version:	infra-cost v0.1.0
Report Type:	Comprehensive Audit Report
Data Source:	Amazon Web Services Cost Explorer API
Analysis Period:	Sep 15, 2025 - Oct 15, 2025

Methodology

- Cost data retrieved from cloud provider's native billing APIs
- Trend analysis based on historical spending patterns
- Anomaly detection using statistical analysis and machine learning algorithms
- Recommendations generated based on FinOps best practices and usage patterns
- All costs displayed in USD unless otherwise specified

Important Notes

- Cost data is subject to cloud provider billing cycles and may include estimates
- Savings projections are estimates based on current usage patterns
- Implementation of recommendations should be carefully planned and tested
- This report is generated automatically and should be reviewed by qualified personnel