Using Reserved Instances saved 30%

Customer: A leading healthcare research, data & technologies company

Summary

A leading healthcare research, data and technologies company was seeking recommendations on cloud optimization & best practices. Powerup conducted a detailed study & analysis to provide the customer team with suggestions on cost optimization, security audit and AWS best practices.

About Customer

The customer is a leading healthcare research and consulting company that provides high-value healthcare industry analysis and insights. They create patient-centric commercialization strategies that drive better outcomes and access, improving the lives of patients globally.

The customer helps businesses achieve commercial excellence through evidence-based decision making processes like expert consultation, proprietary data and analysis via machine learning artificial intelligence.

Problem Statement

The customer utilizes nearly all the tools that AWS offers to build, upgrade & maintain their infrastructure as per ongoing requirements. They are looking at cost optimization for all of their 17 AWS accounts. They plan to initiate cost-saving strategies to their AWS master account by –

- Identifying the number of servers running idle and help create reserved instances.
- Deploy upgraded servers based on recommendations.
- Implement resource tagging for business unit-wise billing.
- Install CloudHealth agent to maintain multiple accounts and
- Automate lifecycle policies for backup maintenance.

The tagging is required to be done on a total of 490+ EC2, 70+ RDS and S3 servers that would be based on P&L, projects, stage, application owner, roles, support contact, function and cost savings heads to name a few.

The team was ill-equipped with the techniques of downsizing and was uncertain about how reports could be utilized to their maximum advantage in order to minimize costs.

Proposed Solution

- ***Phase 1 – 100% CloudHealth agent installation coverage on AWS accounts***

Applying AWS user data as a benchmark, Powerup created a CloudHealth agent inventory list and identified missing agents for the customer. They worked closely with the customer's DevOps team to gain access to servers, to install CloudHealth agent on the remaining 300+ systems. Once done, agent check-in was verified to confirm 100% coverage. Installation was automated for new resources launch and a restriction was imposed on launching any instance without agent set up. Reserved Instance (RI) recommendation was obtained through the CloudHealth tools with the intent to reduce costs.

- ***Phase 2 - Tagging and Governance***

In the cloud environment, tags are identifiers that are affixed to instances. Powerup helped the customer incorporate 100% tagging based on appropriate business reviews. The objective was to strengthen inventory tag lists by classifying all instances under their respective heads. Instances were classified as per AWS best practices to initiate cost controls.

ParkmyCloud is a self-service SaaS platform that is implemented to help identify and terminate wasted cloud spend. It was scheduled periodically on customer's Dev/QC/Staging environments and no machines were launched without proper tagging. It helped keep a check on auto-scaling groups to ensure tagging, as well as help, identify and implement governance rules as alert checks on resources, from being launched without proper tagging, sizing or approvals. Categorization of assets based on its name when tags are missing could be detected easily. Automating tagging and enabling termination policy for an instance helped in better-cost management along with providing the customer with accurate findings, recommendations and a strategic roadmap.

- ***Phase 3 - Rightsizing and instance type consolidation***

Powerup created a database instance inventory list to recognize and review the outdated version of servers. They also identified instances that required reconfiguration and upgradation. They imported instance right-sizing recommendations from data collected from CloudHealth tools that stated suitable suggestions for new instance type and size. It ensured appropriate process flow of right-sizing checks, added business intelligence around recommendations and smoothly transitioned all suggestions to the customer team. These recommendations helped them cut down on costs significantly.

- ***Phase 4 -Security Audit***

With the help of CloudHealth security audit report, the customer could study, analyze and prioritize summary findings by order of criticality and business requirements in a consolidated format. Recommended resolutions helped them validate security loopholes and facilitated suggestions on security fixes to the customer DevOps team. It also enabled them to generate backup services and POC reports which assisted them in checking how reports performed. This enabled them to update alert thresholds to meet business expectations and requirements.

Business Benefits

- Using RI recommendations will help the customer cut down their monthly bills on EC2 and RDS by 30% .
- The new EC2 version instance recommendation can help them save a minimum of 8% of costs while guaranteeing the high-quality performance.
- The customer was able to regulate their billing and cost console using CloudHealth and AWS billing dashboard.
- Restricted resources provisioned without proper tags and CloudHealth agent promotes easy maintenance of multiple accounts by using a single console.

Cloud platform

AWS.

Technologies used

CloudHealth, ParkMyCloud, AWS Backup.