

“Automation in the cloud  
means faster deployment,  
higher quality products.”

Kevin Daly , CEO at Value-Ad



Infrastructure

# Value Ad

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## Stack

### INFRASTRUCTURE:

AWS EC2

AWS Lambda

AWS Cloudwatch

AWS Scaling Groups

AWS S3

AWS Route 53

AWS EKS

AWS RDS

### SOFTWARE:

RANCHER

JAVA

ANGULAR

POSTGRES

PENTAHO

## **VALUE-AD IMPROVES DELIVERY TIME FROM WEEKS TO MINUTES.**

Value-Ad is a lead intelligence platform that provides Lead conversion tools that optimize and drive sales revenues by curating data for marketing and sales teams through reporting across various campaigns activities.

Value-ad came with a very clear problem, how to minimize their go to market time from weeks to days as they were on a continuous growth curve.

## **The Problems**

### **MULTIPLE STACKS, AND UNRELIABLE DEPLOYMENT SCRIPTS CAUSED CONSTANT FRUSTRATION**

Before determining the right solution, we did a deep-dive into Value-AD infrastructure, which consisted of multiple pieces including an Angular, a Java, several ETL jobs and a BI tool, all support by different stacks and teams.

Each stack was developed by its own team and they didn't have any integration mechanism in place in putting all the pieces together taking each interaction to last from days to weeks.

With no CI/CD integration across all teams, the jobs to integrate the stack was inconsistent and prone to errors. Versions were manually kept updated and not necessarily tested across the all stack. For instance, later JAR file wasn't compatible with the latest DB schema or the EC2 Java version installed.

### **EACH DEPLOY WOULD TAKE WEEKS TO BE ACCOMPLISH AND INVOLVEMENT OF AT LEAST 5-6 PEOPLE DURING THE PROCESS.**

Prior to our engagement, they hired another AWS consultant which while he built a solid set of infrastructure components written as a code, it didn't in fact

solved the main business issue Value-add were having. It took them several months and a good chunk of time and money invested to realize they were not reaching what they were looking for. The process was still slow and not addressing any business issues.

Each client deploy is now based on a template that receives common inputs such as client name, domain, environment, and with a few clicks anyone from a developer, to a tester or the support team can deploy a new stack for demo and tests leveraging the power of AWS resources.

## The Process

### **EVALUATING THE RIGHT SOLUTIONS THAT ADDRESS BUSINESS ISSUES WITH INFRASTRUCTURE THAT WORKS.**

We thoroughly analysed our client's problems and evaluated several options that could address their business challenges.

We decide to approach with a Kubernetes cluster using Rancher as the orchestration tool and management UI to rapidly an efficiently deploy their stack.

For each client due to compliance issues they had to deploy a unique stack. Prior to Kubernetes implementation, each client would be sitting on a group of 4-5 EC2 instances.

This approach was not resource friendly; we were not leveraging spare CPU/Memory from these deploys that where been used but they were still been charged for it.

With Kubernetes we leverage the resource sharing model while defining clear security layers using Calico/Flannel network frameworks to deliver a secure cluster where each client stack would sit and share CPU/Memory resources without compromising security.

## The Results

### **REDUCED 500% IN COSTS WITH THE RIGHT INFRASTRUCTURE.**

With the previous infra, each client would sit on their own EC2 with no extra availability and paying on demand costs.

When moving to Kubernetes were able to scale each client app to at least 3 running environments distributed in different availability zones. Due to the highly availability, we were able to switch from On Demand Ec2 instances to Spot Instances reducing in 80% their base costs per stack and around 500% across their existent legacy deployment while also reducing the complexity of operational costs to maintain their old infrastructure.

**WE NOW DEPLOY A CLIENT STACK IN 15 MINUTES INSTEAD WEEKS AND WE ONLY NEED 1 PERSON TO DO IT.**

Value-add and their team were pleased with the results achieved. Having a infrastructure far more stable, scalable, highly available and secure than they ever had achieved in two previous attempts.

**Our cloud initiative in a nutshell achieved the following:**

- Time to market from 2 weeks to 15 minutes
- Up to 80% reduction per stack and 500% initial costs overall reduction
- Much greater scalability and reliability than their Legacy infrastructure.

Secure alignment with their client's compliance requirements

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