AppInCloud

A managed infrastructure solution to host your web applications.

Technical Solution

- A suite of AWS tools to manage the network, database, security, application and CI/CD so you can focus on your app development!
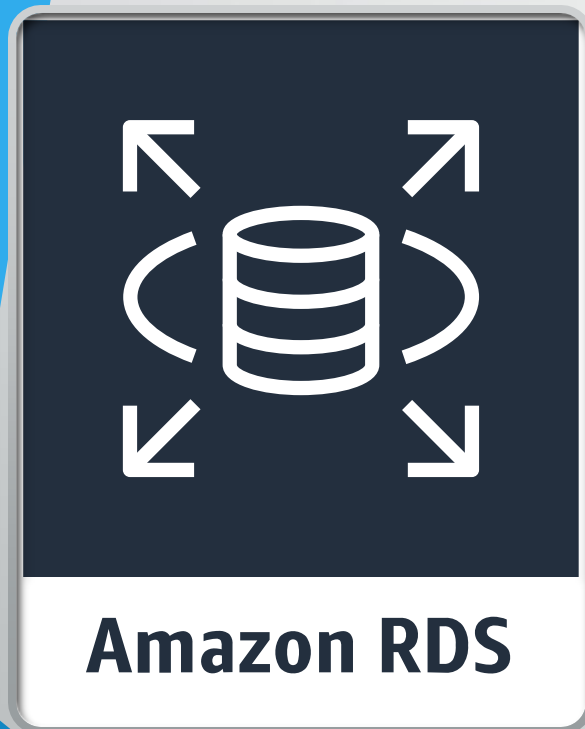
Network

Amazon VPC

- Dedicated VPC for your applications infrastructure.
- Multiple availability zones for both private and public resources.
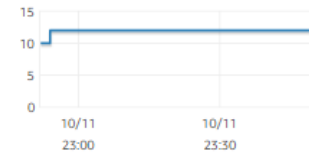- Bastion Host to bridge public / private network.

Database

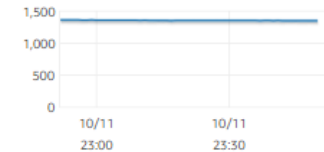- Aurora DB - MySQL 5.6.10a
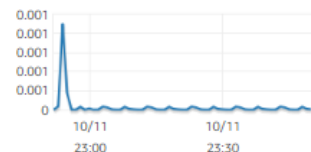- Metrics and Alarms
- Daily snapshots

Amazon RDS
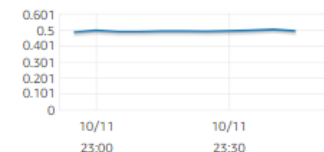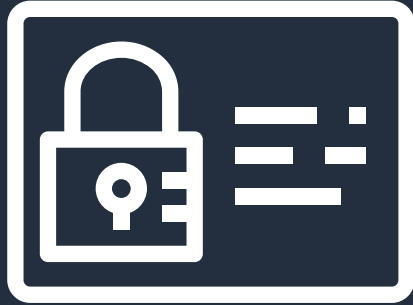
Security

AWS Identity and Access Management

- All communication between resources is limited by IAM roles and policies. All compute resources are protected by RSA keys.

```json
{
    "Statement": [
        {
            "Action": [
                "s3:*"
            ],
            "Resource": [
                "arn:aws:s3:::aws-us-east-1-601953533983-notejam-pipe",
                "arn:aws:s3:::aws-us-east-1-601953533983-notejam-pipe/*",
                "arn:aws:s3:::elasticbeanstalk*"
            ],
            "Effect": "Allow"
        },
```

Amazon CloudWatch

- Centralized Logging

- Event Driven Alerts

- Ready to stream to Analytics (ELK)

CloudWatch > Log Groups

Create Metric Filter	Actions ∨

Filter: | Log Group Name Prefix | × |

Log Groups	Expire Events After
○ /aws/codebuild/notejam	Never Expire
○ /aws/elasticbeanstalk/notejam/var/log/eb-activity.log	1 week (7 days)
○ /aws/elasticbeanstalk/notejam/var/log/nginx/access.log	1 week (7 days)
○ /aws/elasticbeanstalk/notejam/var/log/nginx/error.log	1 week (7 days)
○ /aws/elasticbeanstalk/notejam/var/log/web-1.error.log	1 week (7 days)
○ /aws/elasticbeanstalk/notejam/var/log/web-1.log	1 week (7 days)
○ /aws/lambda/notejam-CICDStack-1480OQRUR3G10-SeederFunction-1P47NLPVFFO01	Never Expire
○ notejam-BastionStack-94KKOWTIECD-BastionSecureLogGroup-1VMOOJKKYDCYA	3 months (90 days)

Application

- Metric Based Autoscaling

- Rolling Updates and Deployments

- Application Versioning

AWS Elastic Beanstalk

Overview | ⟳ Refresh

Health
✓ **Green**
Causes

Running Version
code-pipeline-1539311746471-
notejam-BuildArtifact-cfd7f0cd-
d8ab-482e-a7c3-f34261b3f27e
Upload and Deploy

Configuration
Java 8 running on 64bit Amazon
Linux/2.7.5
Change

Recent Events | Show All

Time	Type	Details
2018-10-11 22:37:37 UTC-0400	INFO	Environment update completed successfully.
2018-10-11 22:37:37 UTC-0400	INFO	New application version was deployed to running EC2 instances.

Continuous deployment

AWS CodeBuild

AWS CodePipeline

AWS CodeCommit
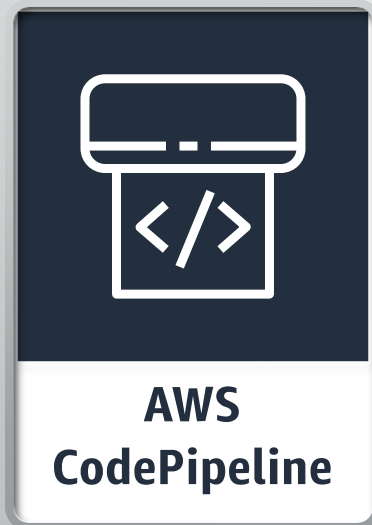
- Commit application updates with git.
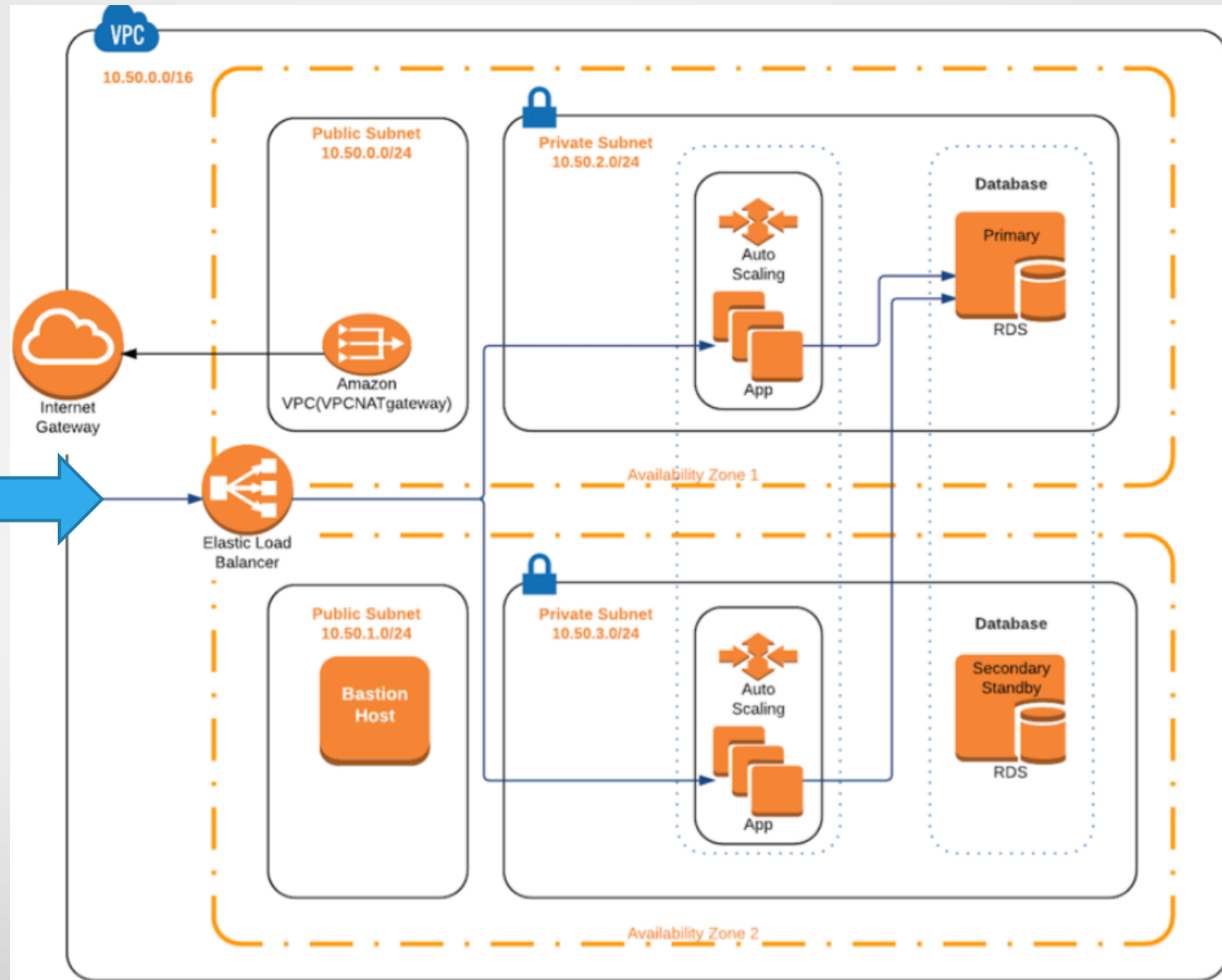- Automated test/builds on commits.
- Automated deployments to Beanstalk.

Architecture

Deployment

AWS CloudFormation

- Launch EC2 instance in AWS
- Clone Seed Repository
- Run deployment script
- Clone new application Repository
- Start Codding!