Introduction to AWS CloudFormation

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About…

…the presenter

- Senior Solutions Architect at Leading EDJE
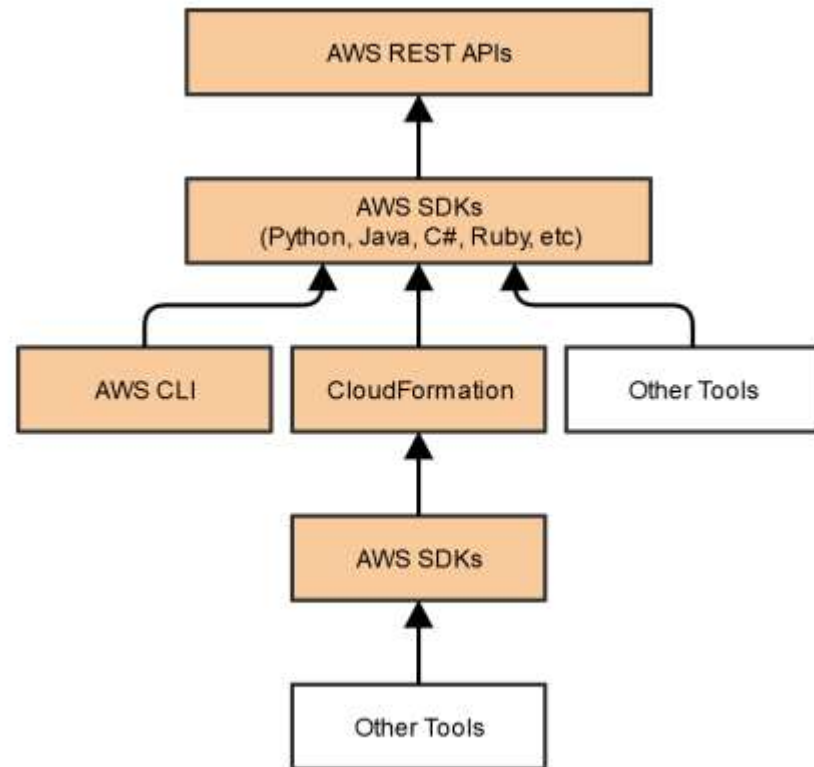- AWS Certified Solutions Architect – Associate

…the presentation

- Messaging & AutoScaling Group examples
- Demos (fingers crossed)
- Code on Github

CloudFormation

- Infrastructure as Code
- JSON/YAML templates
- Repeatable
- Re-usable
- Comprehensive
- Stateful

Alternatives

- Terraform (HashiCorp)
  - Not just AWS
  - Syntax may be easier to understand
- Serverless Framework
  - Focused on stateless architectures (e.g. Lambdas in AWS with API Gateway)
  - Tight integration with code
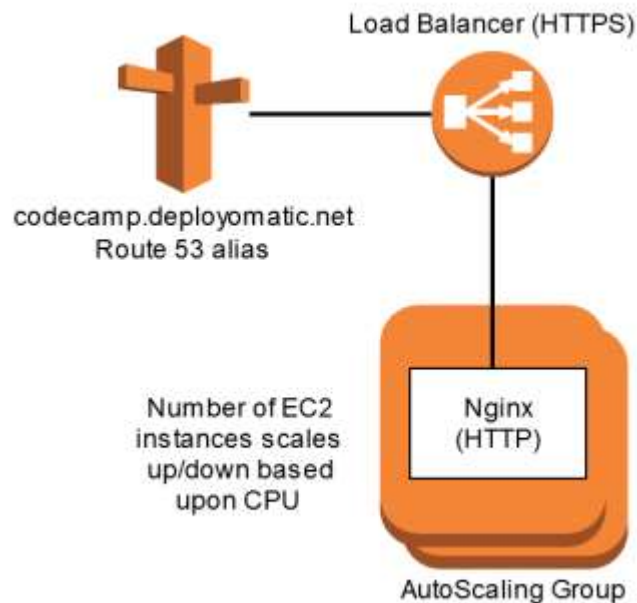- Ansible, Chef, Puppet, Salt etc.

Other AWS Technologies

- SNS (Simple Notification Service)
- SQS (Simple Queue Service)
- EC2 (Elastic Compute Cloud)
- ASG (AutoScaling Groups)
- ELB (Classic Elastic Load Balancer)
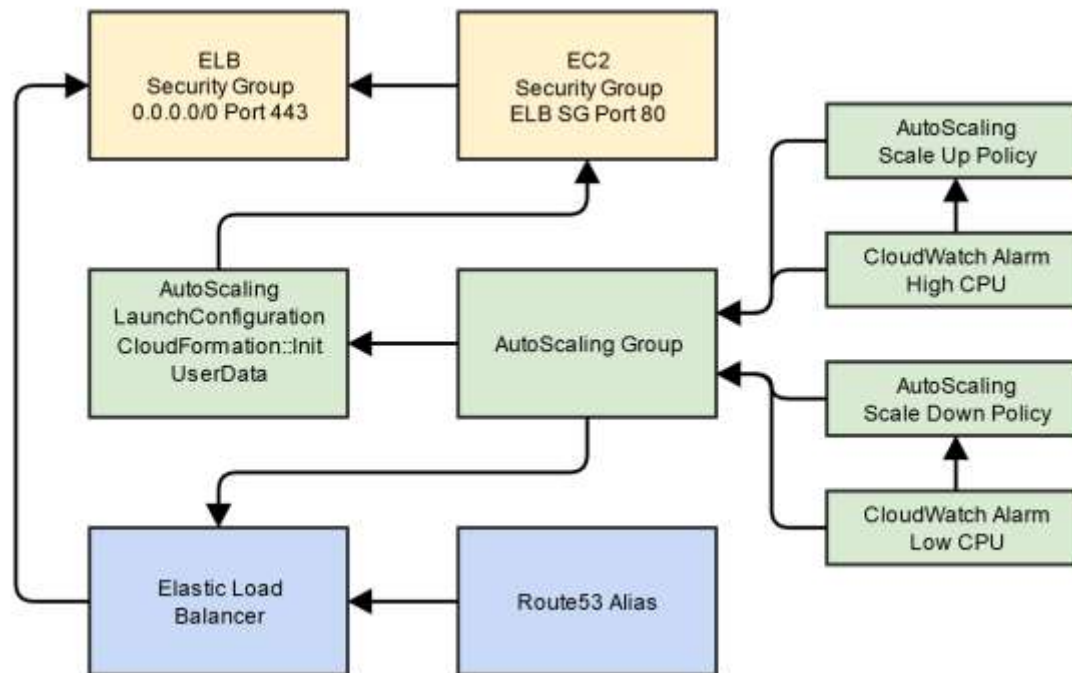- CloudWatch alarms

SNS -> SQS Fan Out
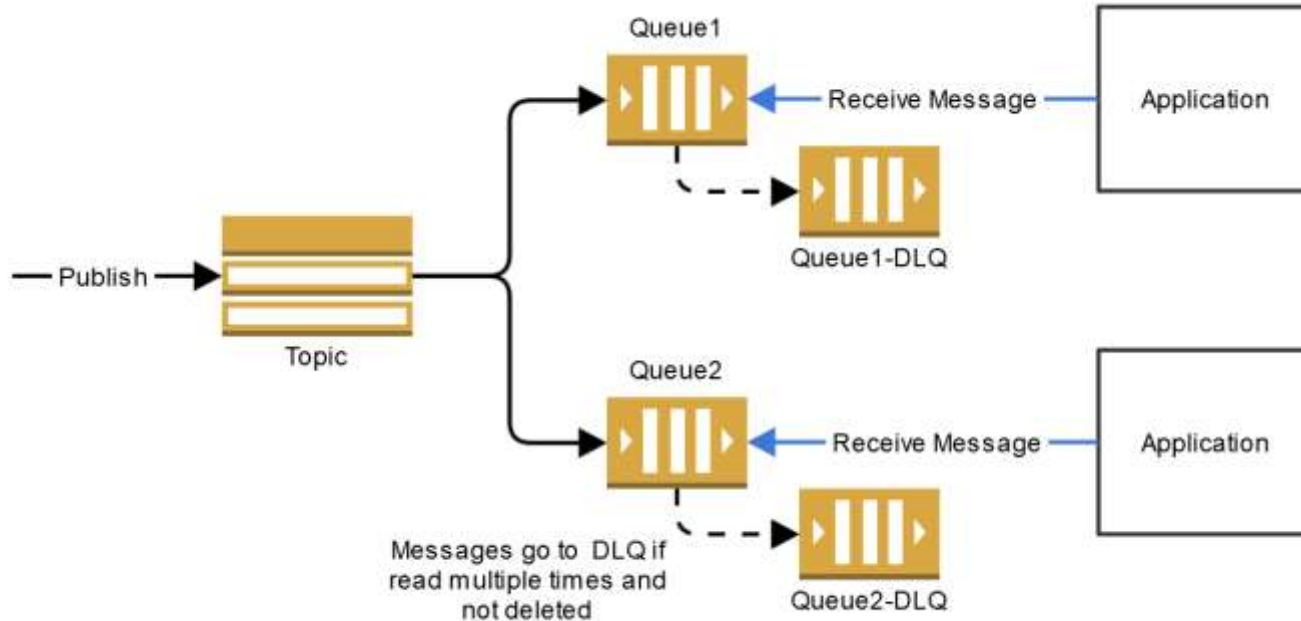
AutoScaling Group

AutoScaling group of EC2 instances running Nginx

Classic Loadbalancer with certificate for HTTPS

Route53 alias (matches cert)

Alarm based scaling

ASG Resources

Advanced Features

- A template can contain a CloudFormation stack as a resource to create nested stacks
  - Upload all templates to S3
- Use an Output from one stack as an input to another
  - Alternatively use Exports to create account wide variables
- Conditions & Mappings

Questions

Code is available in Github:

https://github.com/andrewdmay/codecamp-cloudformation

http://tinyurl.com/codecloud