DAY - 15
AWS OPSWORKS

AWS Architecture and Design

1. Day 1 Overview of Cloud Computing
2. Day 2 Overview of AWS
3. Day 3 Amazon EC2*
4. Day 4 Amazon EBS *
5. Day 5 Amazon CloudWatch *
6. Day 6 Amazon S3*
7. Day 7 Amazon Elastic Load Balancer *
8. Day 8 Amazon Auto Scaling *
9. Day 9 Amazon VPC *
10. Day 10 Amazon IAM *
11. Day 11 Amazon RDS
12. Day 12 Amazon Route 53 *
13. Day 13 Amazon DynamoDB* & Glacier
14. Day 14 Amazon Cloudfront* & Import Export & Amazon SES *
15. **Day 15 Amazon ElasticBeanStalk & Amazon Cloudformation & Amazon OpsWorks**
16. Day 16 AWS Economics & AWS Account Overview *
17. Day 17 AWS Architecture
18. Day 18 AWS Certification Preparation

[With Hands on Demo]

AWS Opsworks

AWS Opsworks

- → Introduction to Opsworks
- → Key Terminology
- → Comparison of OpsWorks with Cloudformation & ElasticBeanstalk

AWS OpsWorks

AWS OpsWorks is a configuration management service that helps you configure and operate applications of all shapes and sizes using Chef.

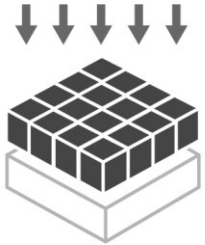
AWS OpsWorks

AWS OpsWorks feature overview

Supports any application

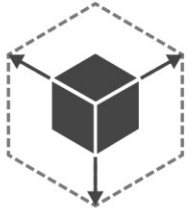
AWS OpsWorks supports a wide variety of architectures, from simple web applications to highly complex custom applications running on Linux or Windows.

Configuration as code



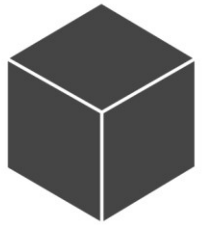
AWS OpsWorks lets you define and maintain configurations for your entire environment in code and lets you provision your instances with Chef.

Automation to run at scale



AWS OpsWorks enables you to efficiently manage your applications over their lifetime, including support for automatic instance scaling and auto healing.

Resource organization



AWS OpsWorks lets you model and visualize your application using concepts such as stacks, layers, and apps. You can also manage your users and resource access on all your instances using AWS IAM.

AWS OpsWorks

Stack :

- The stack is the core AWS OpsWorks component. It is basically a container for AWS resources—Amazon EC2 instances, Amazon RDS database instance which are logically managed togather. (e.g. Web Application)
- IŶ stack all resources ŵaŶaged as a Group ‖ hich ha| e coŵŵoŶ settiŶgs such as OS, ‘ egioŶ etc.

Layer :

- We can make stack's components by adding one or more layers.
- A layer represents a set of Amazon EC2 instances. We can say that the layer is a blueprint for a set of instances. It specifies things like the instance's settings, resources, installed packages, and security groups. It is used to serve a particular purpose, such as serving applications or hosting a database server.
- Layers give you complete control over which packages are installed, how they are configured, how applications are deployed, and much more.

Recipes and LifeCycle Events

- Layers depend on Chef recipes to handle tasks such as installing packages on instances, deploying apps, running scripts, and so on. One of the key AWS OpsWorks features is a set of lifecycle events—Setup, Configure, Deploy, Undeploy, and Shutdown—which automatically run a specified set of recipes at the appropriate time on each instance.

http://docs.aws.amazon.com/opsworks/latest/userguide/gettingstarted-intro-create-stack.html

AWS OpsWorks FAQs

Q: How is AWS OpsWorks different than AWS CloudFormation?

Similarity :
AWS OpsWorks and AWS CloudFormation both support application modeling, deployment, configuration, management, and related activities. Both support a wide variety of architectural patterns, from simple web applications to highly complex applications. AWS OpsWorks and AWS CloudFormation differ in abstraction level and areas of focus.

Difference:
AWS CloudFormation is a building block service that enables customers to provision and manage almost any AWS resource via a JSON-based domain specific language. AWS CloudFormation focuses on providing foundational capabilities for the full breadth of AWS, without **prescribing a particular model for development and operations**. Customers define templates and use them to provision and manage AWS resources, operating systems and application code.

In contrast, AWS OpsWorks is a higher level service that focuses on providing **highly productive and reliable DevOps experiences** for IT administrators and ops-minded developers. To do this, AWS OpsWorks employs a **configuration management model** based on concepts such as **stacks and layers**, and provides integrated experiences for key activities like deployment, monitoring, auto-scaling, and automation.
Compared to AWS CloudFormation, AWS OpsWorks supports a **narrower range of application-oriented** AWS resource types including Amazon EC2 instances, Amazon EBS volumes, Elastic IPs, and Amazon CloudWatch metrics

http://aws.amazon.com/opsworks/faqs/

AWS OpsWorks FAQs

Q: How is AWS OpsWorks different than AWS Elastic Beanstalk?

AWS OpsWorks is a **configuration management platform** while AWS Elastic Beanstalk is an **application management platform**.

AWS Elastic Beanstalk is an easy-to-use service for **deploying and scaling web applications** and services developed with Java, .NET, PHP, Node.js, Python, Ruby, Go, and Docker. Customers upload their code and Elastic Beanstalk automatically does the rest.

AWS OpsWorks and AWS Elastic Beanstalk **both automate operations** but serve different needs and purposes. AWS Elastic Beanstalk is **designed for developers** who want to deploy web applications without worrying about operations. Developers simply upload their code and Elastic Beanstalk automatically handles the **deployment, from capacity provisioning, load balancing, auto- scaling to application health monitoring**. The application will be ready to use without any infrastructure or resource configuration work on the developer's part.

In contrast, AWS OpsWorks is an **integrated configuration management** platform for IT administrators and DevOps engineers who want a high degree of **customization and control over operations**. AWS OpsWorks users leverage Chef recipes to automate operations like **software configurations, package installations, database setups, server scaling, and code deployment**.

http://aws.amazon.com/opsworks/faqs/

Demo

Lets see the Demo of AWS OpsWorks!

Summary

In this video we learned Opsworks.

In next session we will have overview about AWS Economics & Account

Thank You

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