

Module 1: Introduction To AWS DevOps

Demo Document 3

edureka!

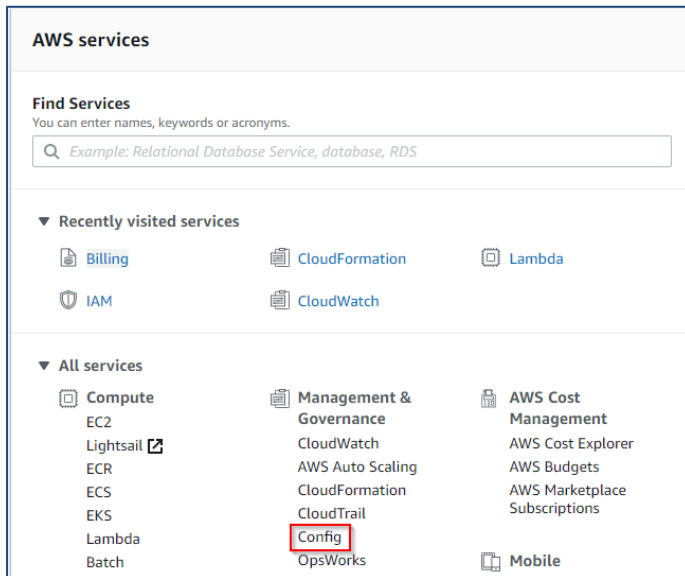
edureka!

© Brain4ce Education Solutions Pvt. Ltd.

Enabling Governance using AWS Config

DEMO Steps:

Step 1: Go to management console and ***select Config*** under the Management and Governance



Step 2: click on “Get started”



Module 1: Introduction To AWS DevOps

Step 3: To get the records of the resources running in your account turn on the **record** option

Set up AWS Config

Review the [pricing page](#) before you start.

Step 1: Settings
Step 2: Rules
Step 3: Review

Resource types to record

Select the types of AWS resources for which you want AWS Config to record configuration changes. By default, AWS Config records configuration changes for all supported resources. You can also choose to record configuration changes for supported global resources in this region.

All resources ☒ Record all resources supported in this region ⓘ
☐ Include global resources (e.g., AWS IAM resources) ⓘ

Specific types

Amazon S3 bucket*

Your bucket receives configuration history and configuration snapshot files, which contain details for the resources that AWS Config records.

☒ Create a bucket
☐ Choose a bucket from your account
☐ Choose a bucket from another account ⓘ

Bucket name* / / AWSLogs/245376966395/Config/us-west-1

Steps 4: Now (for understanding the demo) go **EC2 console**, create an instance and perform certain action on it

Launch Instance Actions

Filter by tags and attributes or search

	Name	Instance ID	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS (IPv4)	IPv4 Public IP
<input type="checkbox"/>	ELB-2	i-0b9cada2ca7b...		stopped		None		-
<input type="checkbox"/>	database	i-0bc57eb405e2...		stopped		None		-
<input type="checkbox"/>	Nagios_BSM	i-0ccbe47c23c0...		stopped		None		-
<input type="checkbox"/>	ELB-1	i-0e296f8f1b50a...		stopped		None		-
<input type="checkbox"/>	HW_Datano...	i-0f1ad7147cca3...	us-west-1a	stopped		None		-
<input checked="" type="checkbox"/>	Sample-Insta...	i-049e6f228f5d84894	us-west-1a	running	2/2 checks ...	None	ec2-13-56-164-229.us-...	13.56.164.229
<input type="checkbox"/>	master	i-07c968ca9613b13e0	us-west-1a	running	2/2 checks ...	None	ec2-13-57-57-17.us-we...	13.57.57.17

Actions menu:

- Connect
 - Get Windows Password
 - Create Template From Instance
 - Launch More Like This
- Instance State
 - Start
 - Stop
 - Stop - Hibernate
- Instance Settings
 - Reboot
 - Terminate
- Image
- Networking
- CloudWatch Monitoring

Steps 5: Come back to Config console ***create a bucket*** to store the recorded log files

Amazon S3 bucket*

Your bucket receives configuration history and configuration snapshot files, which contain details for the resources that AWS Config records.

☒ Create a bucket
☐ Choose a bucket from your account
☐ Choose a bucket from another account ⓘ

Bucket name*

config-bucket-245376966395 / Recording / AWSLogs/245376966395/Config/us-west-1

Step 6 : Create an ***SNS topic*** to get the notifications

Amazon SNS topic

☒ Stream configuration changes and notifications to an Amazon SNS topic.
⚠ If you choose email as the notification endpoint for your SNS topic, this can cause a high volume of email. [Learn more.](#)

☒ Create a topic
☐ Choose a topic from your account
☐ Choose a topic from another account ⓘ

Topic name*

AWS Config role*

Grant AWS Config read-only access to your AWS resources so that it can record configuration information, and grant it permission to send this information to Amazon S3 and Amazon SNS.

☒ Create AWS Config service-linked role
☐ Choose a role from your account

Step 7: Click on *next* and finally click on “confirm”

AWS Config rules (0)

Settings

Resource types All resources (including global resources)

Amazon S3 bucket config-bucket-245376966395/Recording

Amazon SNS topic config-topic-demo

AWS Config role AWSServiceRoleForConfig

Cancel Previous **Confirm**

Step 8: Wait for configuration of resources (this might take some time) once it is done select *any resource* for checking its detail

AWS Config

- Dashboard
- Rules
- Resources
- Settings
- Authorizations
- Aggregated view
 - Rules
 - Resources
 - Aggregators
- What's new
- Learn More
 - Documentation
 - Partners
 - FAQs
 - Pricing

Resources

Top 10 resource types	Total
EC2 SecurityGroup	132
RDS DBSnapshot	23
EC2 NetworkInterface	21
EC2 Volume	19
EC2 Instance	18
S3 Bucket	16
CloudWatch Alarm	10
EC2 Subnet	7
EC2 RouteTable	5
EC2 VPC	4

Config rule compliance

Resource compliance

1 Evaluate your AWS resource configuration using Config rules

2 Add rules to define the desired configuration settings for your AWS resources: 0

Noncompliant rule(s) **Add rule** Noncompliant resource(s)

Noncompliant rules

Rule name	Compliance
All rules compliant	

Step 9: Select any *instance* or enter the *instance id* for analyzing the details

AWS Config

Dashboard
Rules
Resources
Settings
Authorizations

Aggregated view
Rules
Resources
Aggregators

What's new

Learn More

Resources ☒ Tag ☐ Compliance status

EC2: Instance [Look up](#)

☐ Include deleted resources

Resource actions

	Resource identifier	Resource type	Compliance
<input type="radio"/>	i-01cbd02ddbfc205a	EC2 Instance	--
<input type="radio"/>	i-03bb8d2c00e732a08	EC2 Instance	--
<input type="radio"/>	i-045d817b07c74a58d	EC2 Instance	--
<input checked="" type="radio"/>	i-049e6f228f5d84894	EC2 Instance	--

Step 10: Click on “Configuration timeline”

Resources > i-049e6f228f5d84894

Resource details: i-049e6f228f5d84894

[Configuration timeline](#) [Compliance timeline](#) [Manage resource](#)

Amazon Resource Name	arn:aws:ec2:us-west-1:245376966395:instance/i-049e6f228f5d84894	Instance Type	t2.micro
Resource type	AWS::EC2::Instance	Instance state	stopped
Resource ID	i-049e6f228f5d84894	Private DNS	ip-172-31-20-82.us-west-1.compute.internal
Resource name	null	Private Ips	172.31.20.82
Availability zone	us-west-1a	Public DNS	
Created on	March 01, 2019 12:23:56 PM	AMI ID	ami-09bfcadb25ee95bec
Tags (1)	<input type="button" value="Name:Samp..."/>	Platform	null
		Launch time	2019-03-01T06:53:56.000Z
		Lifecycle	null
		Monitoring	disabled

Rules applied

Resource compliance status Not applicable

[Add rule](#) [Rule actions](#)

Step 11: Here you will get all the **granular details** of the **actions performed** on the instance

The screenshot shows the AWS Config console for an EC2 Instance. The breadcrumb trail is "AWS Config > resources > i-049e6f228f5d84894 > configuration". The instance name is "EC2 Instance i-049e6f228f5d84894" and it was created on "March 01, 2019 3:07:01 PM India Standard Time (UTC+05:30)". There are buttons for "Managed instance information" and "Manage resource". Below this, there are tabs for "Configuration timeline" and "Compliance timeline". The "Configuration timeline" tab is active, showing a timeline of events. A date selector is set to "01st March 2019". A red box highlights the "01st March 2019" date selector and the "Changes" link below it. Below the timeline, there is a "Configuration Details" section with a "View Configuration Item (JSON)" link. The details include "Amazon Resource Name", "Instance Type", "Instance state", and "Resource type".

Configuration timeline

01st March 2019

Changes

Configuration Details

View Configuration Item (JSON)

Amazon Resource Name: am:aws:ec2:us-west-1:245376966395:instance/i-049e6f228f5d84894

Instance Type: t2.micro

Instance state: stopped

Resource type: AWS::EC2::Instance

Step 12: To check the **configuration changes** made at the mentioned time click on “Changes” and you will get the set of logs

The screenshot shows the "Configuration Changes" section of the AWS Config console. A red box highlights the "Configuration Changes" link. Below it, there is a table with columns "Field", "From", and "To". The "Field" column contains "Configuration.NetworkInterfaces.0". The "From" column contains a JSON object representing the network interface configuration. The "To" column is empty.

Configuration Changes

Field	From	To
Configuration.NetworkInterfaces.0	<pre>{ "association": { "ipOwnerId": "amazon", "publicDnsName": "ec2-54-153-88-78.us-west-1.compute.amazonaws.com", "publicIp": "54.153.88.78" }, "attachment": { "attachTime": "2019-03-01T06:53:56.000Z", "attachmentId": "eni-attach-07a669f8af9555ae6", "deleteOnTermination": true, "deviceIndex": 0, "status": "attached", "description": "" }, "groups": [{ "groupName": "launch-wizard-79", "groupId": "sg-00c9eac391594467b" }], "ipv6Addresses": [], "macAddress": "02:b8:92:0b:a8:f2", "networkInterfaceId": "eni-0e5bbc089b4db5ab3", "ownerId": "245376966395", "privateDnsName": "ip-172-31-20-82.us-west-1.compute.internal", "privateIpAddress": "172.31.20.82" }</pre>	

Conclusion:

We have successfully enabled governance via AWS config to get a detailed inventory of the services being used in your AWS account