

Move Fast

AND

Stay Secure

# Making life easier

- Choosing **security** does not mean giving up on **convenience** or introducing complexity

# Security ownership as part of DNA



**Distributed**



**Embedded**

- Promotes culture of “everyone is an owner” for security
- Makes security a stakeholder in business success
- Enables easier and smoother communication

# Strengthen your security posture

Over 30 global compliance  
certifications and accreditations



Security infrastructure built to  
satisfy military, global banks, and other  
high-sensitivity organizations



Get native functionality and tools



Benefit from AWS industry leading  
security teams 24/7, 365 days a year



Leverage security enhancements gleaned  
from 1M+ customer experiences



# Why is Security Traditionally Hard?



Lack of visibility



Low degree of automation

# New Tools in Your Toolbox – Security Controls

- Directive
- Preventive
- Detective
- Responsive

# Security Controls



- Directive Controls



- Detective Controls



- Preventive Controls



- Responsive Controls

# Understand AWS Security Practice



# Prescriptive Approach



**Understand  
AWS  
Security  
Practice**



**Build Strong  
Compliance  
Foundations**



**Integrate Identity  
& Access  
Management**



**Enable  
Detective  
Controls**



**Establish  
Network  
Security**



**Implement  
Data  
Protection**



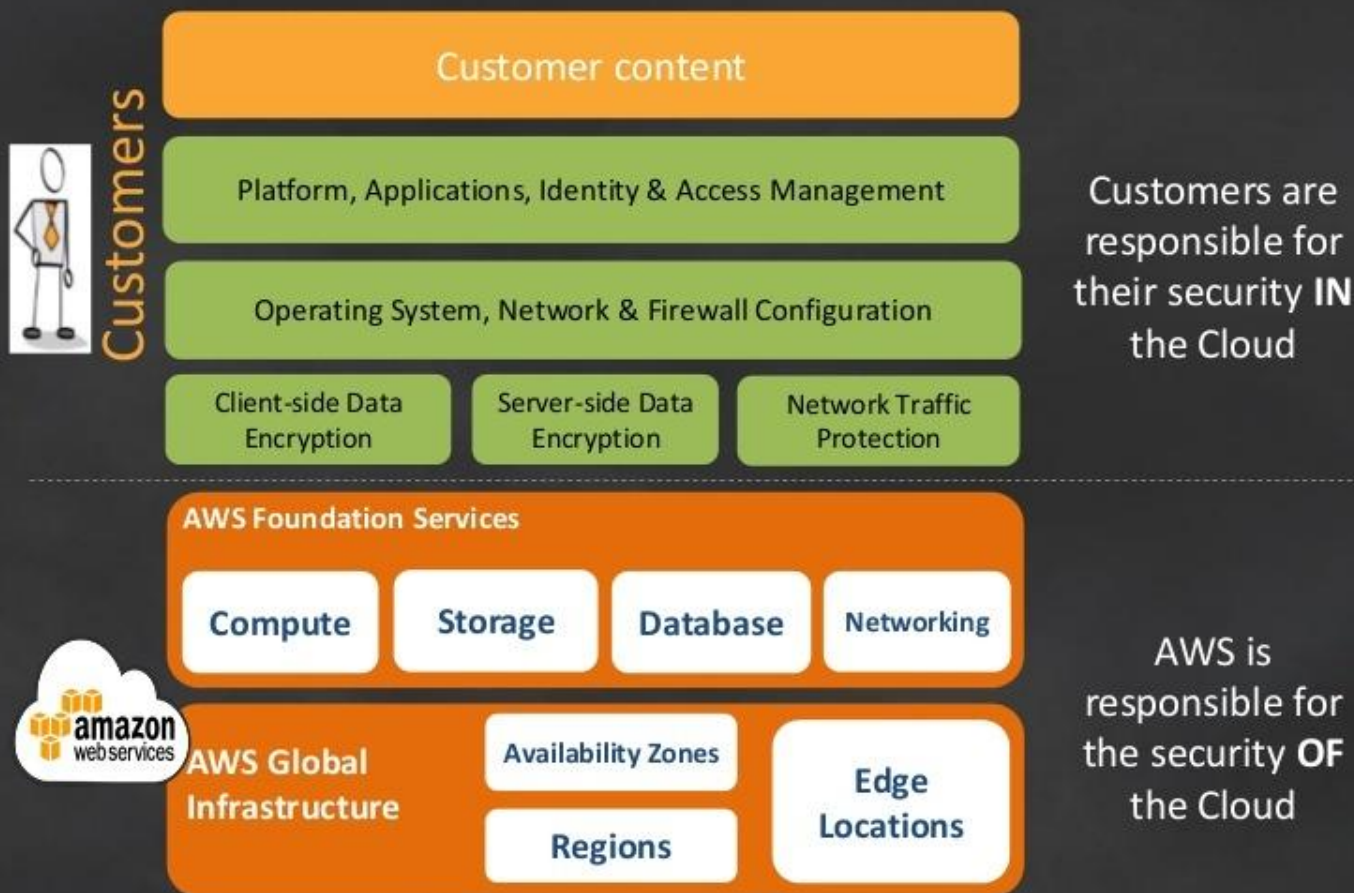
**Optimize  
Change  
Management**



**Automate  
Security  
Functions**

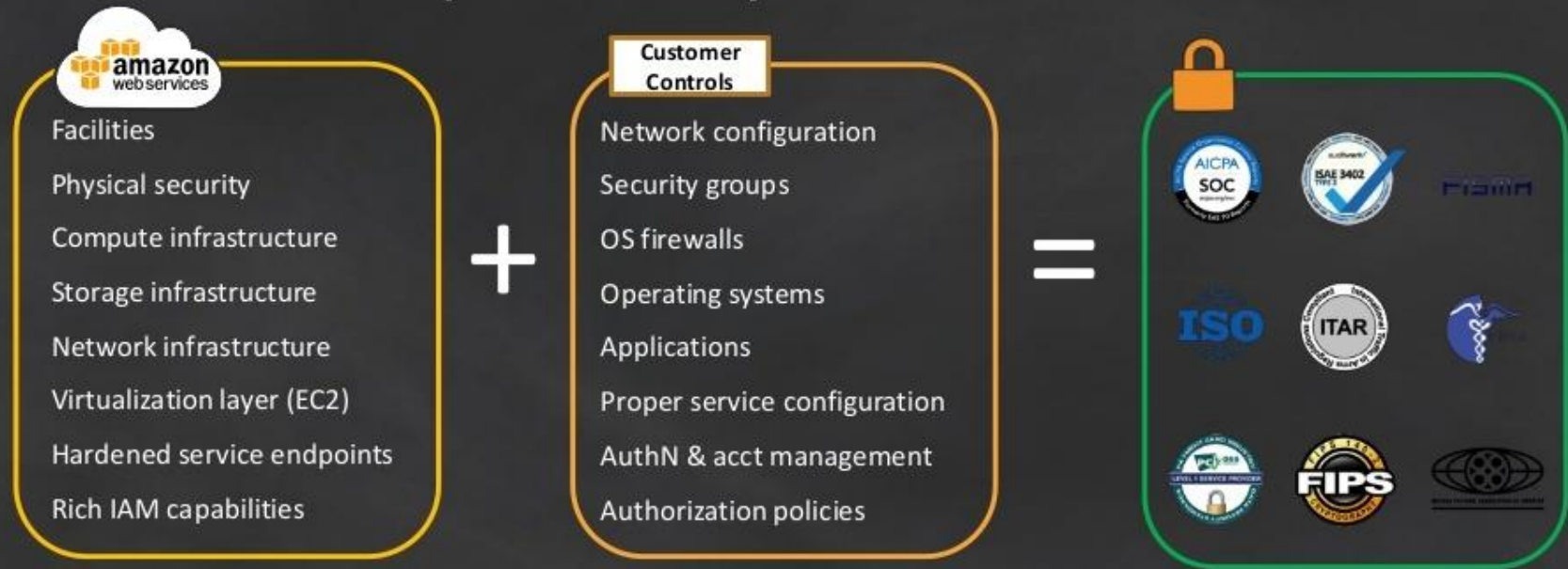
<https://aws.amazon.com/security/security-resources>

# Security is a shared responsibility



# Build Strong Compliance Foundations

# AWS Shared Responsibility Model



- Scope of responsibility depends on the type of service offered by AWS: **Infrastructure, Container, Abstracted Services**
- Understanding who is responsible for what is critical to ensuring your AWS data and systems are secure!

# Broad Accreditations & Certifications



<https://aws.amazon.com/compliance/dod/>



# Meet your own security objectives

**Your Controls**

Your own accreditation



Your own certifications



Your own external audits



Customer scope and effort is reduced

Better results through focused efforts

**AWS**

**AWS Foundation Services**

Compute

Storage

Database

Networking

**AWS Global Infrastructure**

Availability Zones

Regions

Edge Locations

Built on AWS consistent baseline controls

# AWS Global Infrastructure



# Directive Controls



Establish the governance, risk, and compliance models the environment will operate



# Account Governance & Ownership



**AWS  
Organizations**

Centrally manage multiple accounts to help you scale.

- control which AWS services are available to individual accounts
- automate new account creation
- easily manage security and automation settings



**AWS  
IAM**

Securely control access to AWS services and resources for your users.

# AWS Identity & Access Management



IAM Users



IAM Groups



IAM Roles



IAM Policies

# Account Governance – New Accounts



# Preventive Controls

Protect your workloads and mitigate threats and vulnerabilities



# Infrastructure Protection

## Resources



Virtual firewall that controls the traffic for one or more resources.



**AWS**  
CloudFormation

Easily create and manage a collection of related AWS resources, provisioning and updating them in an orderly and predictable fashion



**AWS**  
OpsWorks

Automate how servers are configured, deployed, and managed.



**Amazon**  
VPC

## Network

Provision a logically isolated section of AWS cloud where you can launch AWS resources in a virtual network that you define.



**AWS**  
Shield

DDoS protection service that safeguards web applications running on AWS



**AWS WAF**

Protect your web applications from common web exploits that could affect application availability, compromise security, or consume excessive resources

# Security Groups

Filter VPC security groups

<input type="checkbox"/>	Name tag	Group ID	Group Name	VPC	Description
<input type="checkbox"/>	sg_ELB_FrontEnd	sg-9142e0f7	sg_ELB_FrontEnd	vpc-9df15bf9	ELB Security Group
<input type="checkbox"/>	sg_Backend	sg-3e40e258	sg_Backend	vpc-9df15bf9 (10.50.0.0/16...	Backend Security Group
<input checked="" type="checkbox"/>	sg_Web_Frontend	sg-7640e210	sg_Web_Frontend	vpc-9df15bf9	Web Security Group

sg-7640e210 | sg\_Web\_Frontend

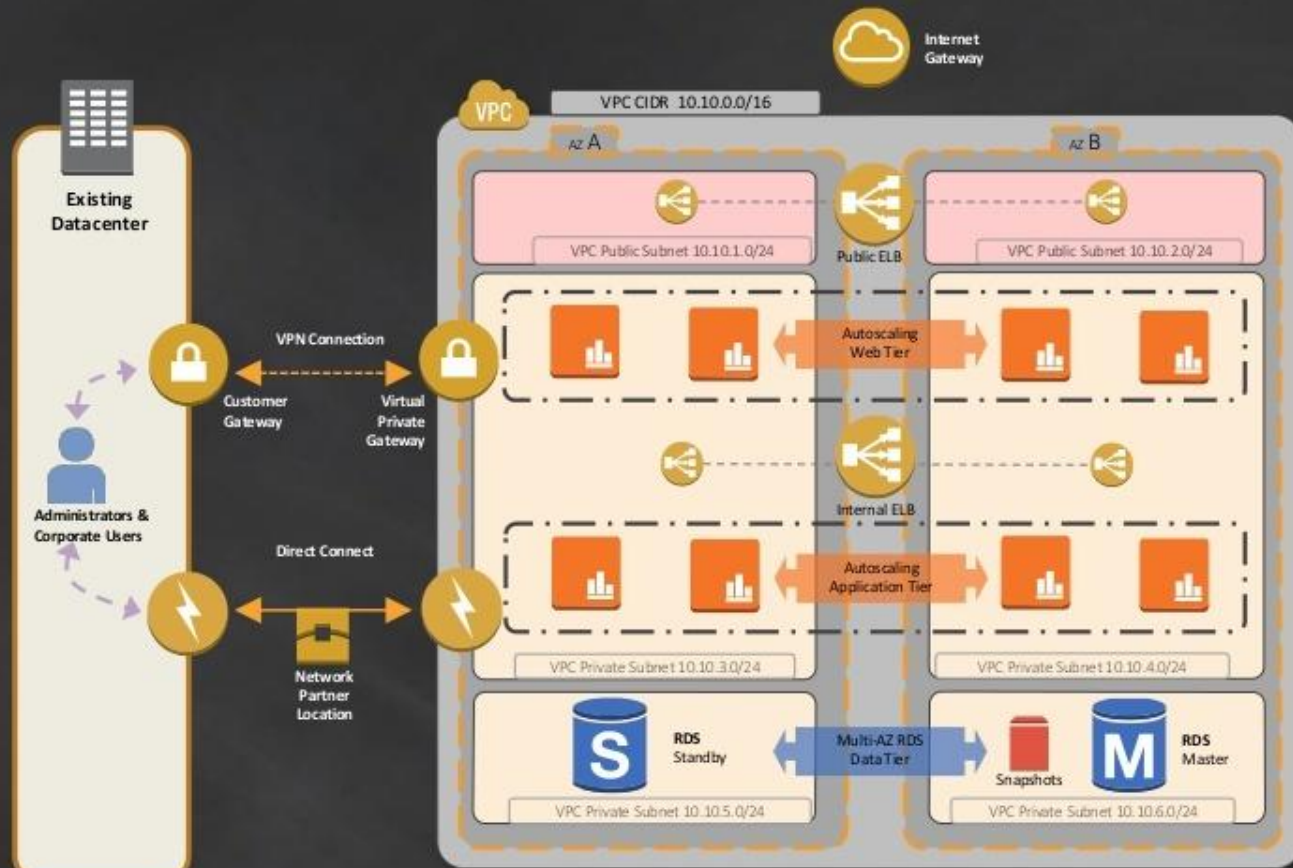
Summary Inbound Rules Outbound Rules Tags

Edit

Type	Protocol	Port Range	Source
HTTPS* (8443)	TCP (6)	8443	sg-9142e0f7

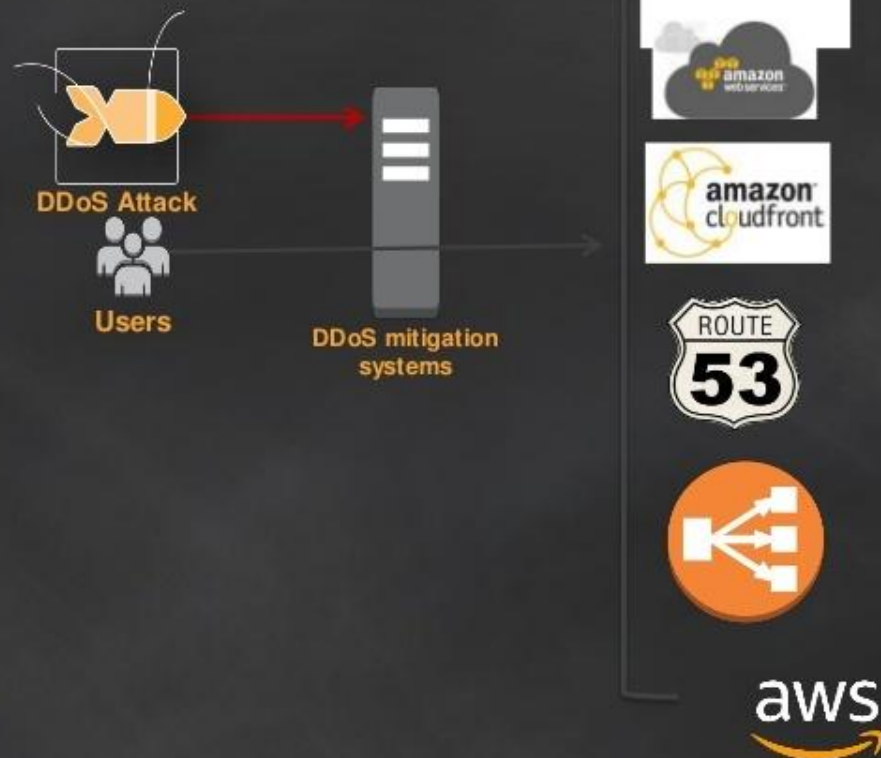


# Amazon Virtual Private Cloud



# DDoS protections built into AWS

- Protection against most common infrastructure attacks
- SYN/ACK Floods, UDP Floods, Reflection attacks etc.
- No additional cost





# Advanced DDoS protection

**Layer 3/4**  
**infrastructure**  
**protection**



**Layer 7**  
**application**  
**protection**



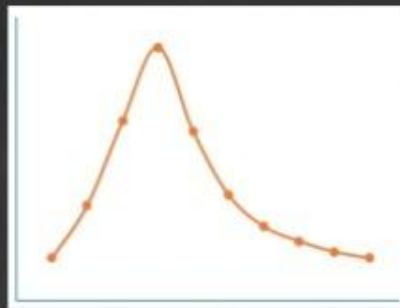
# Layer 3/4 infrastructure protection



- Advanced mitigation techniques



Deterministic  
filtering



Traffic prioritization  
based on scoring



Advanced routing  
policies

# AWS WAF – Layer 7 application protection



**Web traffic filtering  
with custom rules**



**Malicious request  
blocking**



**Active monitoring  
and tuning**

# AWS Shield Standard

Protection against most common DDoS attacks, and access to tools and best practices to build a DDoS resilient architecture.

- **Free of Cost**
- **Network Flow monitoring**
- **Quick Detection**
- **Inline Attack Mitigation**
- **DDoS protection best practices/architecture review**
- **Instant rule updates using Web Application Firewall (WAF)**

# AWS Shield Advanced

Additional protection against larger and more sophisticated attacks, visibility into attacks, and 24X7 access to DDoS experts for complex cases.

- **Application Traffic monitoring**
- **Additional DDoS mitigation capacity for large attacks**
- **Layer 3 / Layer 4 attack notification**
- **Layer 3 / Layer 4 / Layer 7 attack historical report**
- **Custom mitigations during attacks**
- **Post attack analysis**
- **DRT-driven application layer (Layer 7) mitigations**
- **Currently available to only Business and Enterprise Support customers**

# Data Protection



AWS Certificate Manager

- Provision, manage, and deploy TLS certificates
- Use with Amazon ELB or Amazon CloudFront distribution



Amazon CloudHSM V2

- Fully Managed service
- Standards-compliant
- FIPS 140-2 Level 3
- AWS-Native



AWS KMS

- Deep integration with AWS Services
- CloudTrail
- AWS SDK for application encryption



# Authenticating AWS to you and protecting confidentiality using TLS

- TLS can be used with every AWS API to protect data upload/download and configuration change
- You can provide your own certificates to be presented to your customers when using:
  - Elastic Load Balancing
  - Amazon CloudFront (content distribution network)

# AWS Certificate Manager (ACM)

- Provision trusted SSL/TLS certificates from AWS for use with AWS resources:
  - Elastic Load Balancing
  - Amazon CloudFront distributions
- AWS handles the muck
  - Key pair and CSR generation
  - Managed renewal and deployment
- Domain validation (DV) through email
- Available through AWS Management Console, AWS Command Line Interface (AWS CLI), or API





# Options for using encryption in AWS

## Client-side encryption

- You encrypt your data **before** data submitted to service
- You supply encryption keys OR use keys in your AWS account
- Available clients:
  - S3, EMR File System (EMRFS), DynamoDB, AWS Encryption SDK

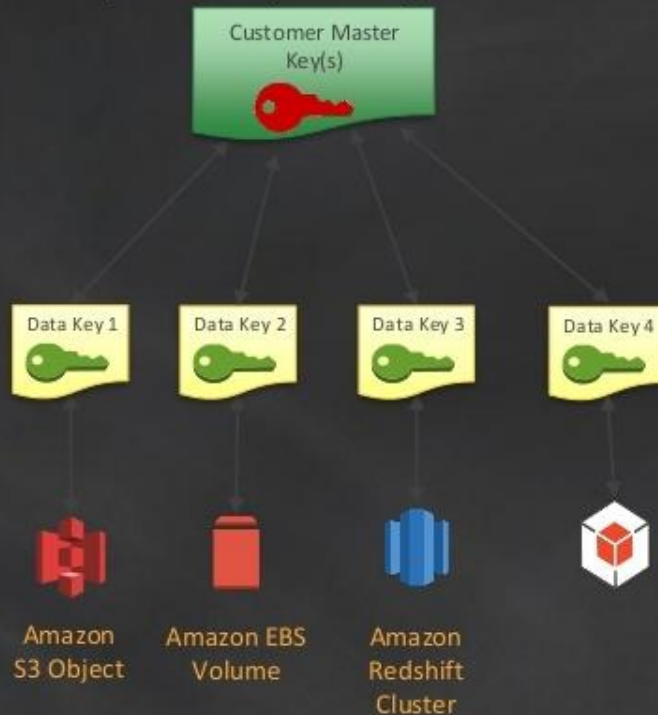
## Server-side encryption

- AWS encrypts data on your behalf **after** data is received by service
- 19 integrated services including S3, Snowball, EBS, RDS, Amazon Redshift, WorkSpaces, Amazon Kinesis Firehose, CloudTrail

# AWS Key Management Service



*Managed service to securely create, control, rotate, and use encryption keys.*



# AWS CloudHSM

*Help meet compliance requirements for data security by using clustered Hardware Security Module appliances with AWS.*

- Hardware-enforced isolation of crypto operations and key storage.
- **Scalable managed service** – Provisioning, patching, high availability, and backups are all built-in and taken care of for you.
- **Standards-compliant**
  - PKCS #11
  - Java Cryptography Extension(JCE)
  - Microsoft CryptoNG (CNG).
- **FIPS 140-2 Level 3** support



# Comparing CloudHSM with KMS

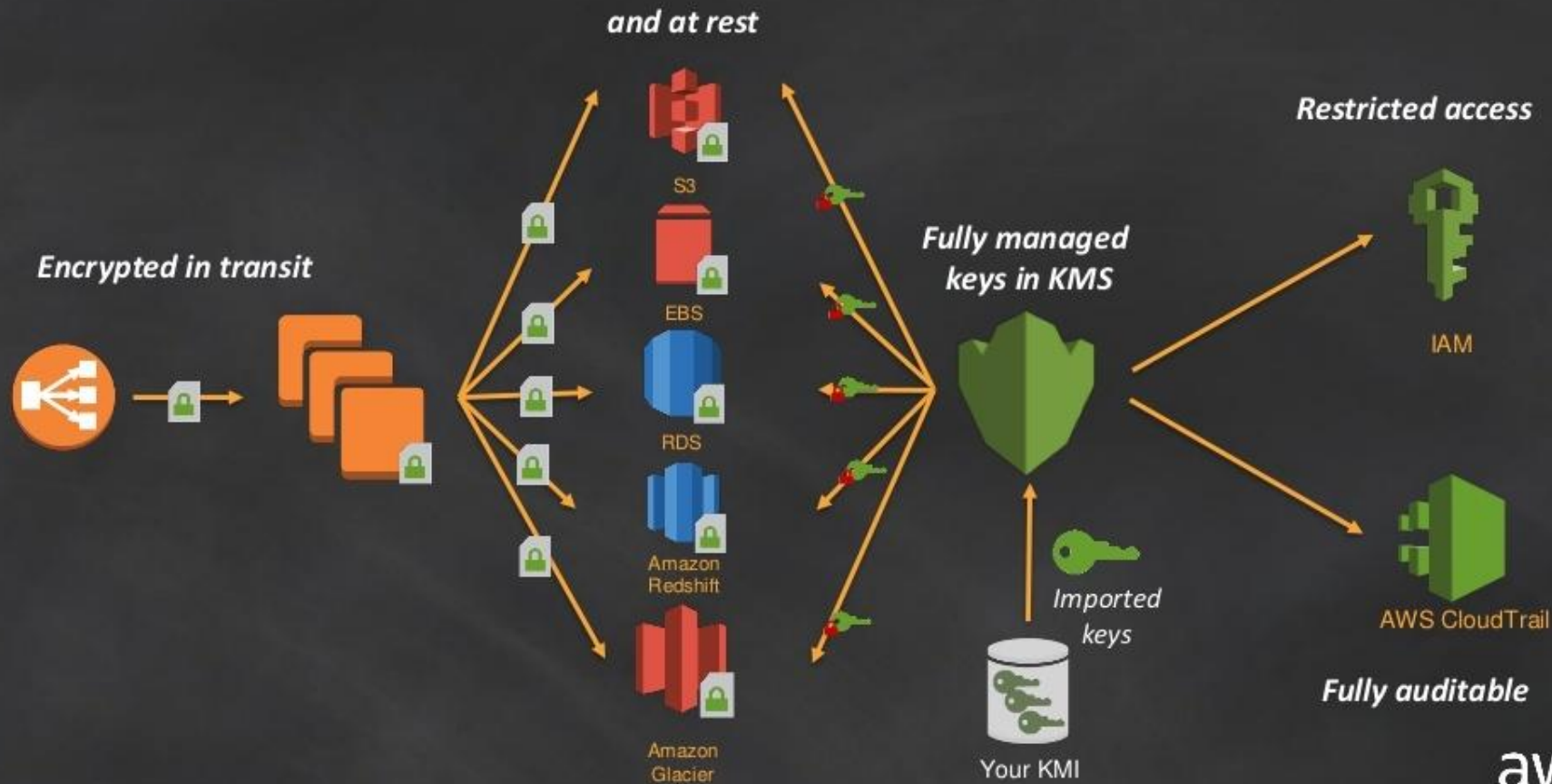
## CloudHSM

- Access to one or more HSM devices that comply with government standards (for example, FIPS 140-2, Common Criteria)
- You control all access to your keys and the application software that uses them
- Supported applications:
  - Your custom software
  - Third-party software
  - AWS services: Amazon Redshift, RDS for Oracle

## KMS

- Highly available and durable key storage, management, and auditable service
- Allows you to import keys
- Easily encrypt your data across AWS services and within your own applications based on policies you define
- Supported applications:
  - Your custom software built with AWS SDKs/CLI
  - AWS services (S3, EBS, RDS, Amazon Aurora, Amazon Redshift, WorkMail, WorkSpaces, CloudTrail, Elastic Transcoder)

# Ubiquitous encryption





# Data Loss Prevention

## Amazon Macie

- Machine learning service to help customers prevent data loss in AWS.
- Analyzes S3 objects.
- Identifies and protects the data that attackers are likely to target.
- Automatically learns jargon, internal project names, and estimates the business value.



# Database security with Amazon RDS

# Database security



ORACLE®



Amazon database solutions:



**Amazon  
DynamoDB**



**Amazon  
Redshift**



**Amazon  
Aurora**



**AWS Database  
Migration Service**



# AWS database services and encryption at rest

## Server-side encryption with KMS

- RDS MySQL
- RDS PostgreSQL
- RDS SQL Server
- RDS Oracle
- RDS MariaDB
- Amazon Aurora
- Amazon Redshift

## Client-side encryption for row/column/field-level protection

- DynamoDB encryption client
- Build your own with AWS SDK
- third-party solutions

## Server-side encryption with CloudHSM

- Amazon Redshift
- RDS Oracle TDE
- Microsoft SQL TDE

# AWS data platforms - IAM and CloudTrail

- API permissions
  - Enforce separation of duties
- Resource-based permissions
  - Use tags by environment
- Integrated with CloudTrail
  - Alert on key management activities



# Preventive Controls

```
{
  "Version": "2012-10-17",
  "Id": "key-consolepolicy-2",
  "Statement": [
    {
      "Sid": "Enable IAM User Permissions",
      "Effect": "Allow",
      "Principal": { "AWS": "arn:aws:iam::111122223333:root" },
      "Action": "kms:*",
      "Resource": "*"
    },
    {
      "Sid": "Allow access for Key Administrators",
      "Effect": "Allow",
      "Principal": { "AWS": [
        "arn:aws:iam::111122223333:user/KMSAdminUser",
        "arn:aws:iam::111122223333:role/KMSAdminRole"
      ] },
      "Action": [
        "kms:Create*",
        "kms:Describe*",
        "kms:Enable*",
        "kms:List*",
        "kms:Put*",
        "kms:Update*",
        "kms:Revoke*",
        "kms:Disable*",
        "kms:Get*",
        "kms:Delete*",
        "kms:TagResource",
        "kms:UntagResource",
        "kms:ScheduleKeyDeletion",
        "kms:CancelKeyDeletion"
      ],
      "Resource": "*"
    },
    {
      "Sid": "Allow use of the key",
      "Effect": "Allow",
      "Principal": { "AWS": [
        "arn:aws:iam::111122223333:user/KMSUser",
        "arn:aws:iam::111122223333:role/KMSRole",
        "arn:aws:iam::444455556666:root"
      ] },
      "Action": [
        "kms:Encrypt",
        "kms:Decrypt",
        "kms:ReEncrypt*",
        "kms:GenerateDataKey*",
        "kms:DescribeKey"
      ],
      "Resource": "*"
    },
    {
      "Sid": "Allow attachment of persistent resources",
      "Effect": "Allow",
      "Principal": { "AWS": [
        "arn:aws:iam::111122223333:user/KMSUser",
        "arn:aws:iam::111122223333:role/KMSRole",
        "arn:aws:iam::444455556666:root"
      ] },
      "Action": [
        "kms:CreateGrant",
        "kms:ListGrants",
        "kms:RevokeGrant"
      ],
      "Resource": "*",
      "Condition": { "Bool": { "kms:GrantsForAWSResource": "true" } }
    }
  ]
}
```

Allows the AWS account (root user) 111122223333 full access to the CMK, and thus enables IAM policies in the account to allow access to the CMK.

Allows IAM user KMSAdminUser and IAM role KMSAdminRole to administer the CMK.

Allows IAM user KMSUser, IAM role KMSRole, and AWS account 444455556666 to use the CMK.

# Responsive Controls



Services ▾ Resource Groups ▾ ⌵

udWatch  
hboards  
ms  
MIM  
SUFFICIENT  
ing  
nts  
les  
s  
CS

## Step 1: Create rule

Create rules to invoke Targets based on Events happening in your AWS environment.

### Event Source

Build or customize an Event Pattern or set a Schedule to invoke Targets.

☒ Event Pattern ⓘ ☐ Schedule ⓘ

Build event pattern to match events by service ▾

Service Name

Key Management Service (KMS) ▾

Event Type

AWS API Call via CloudTrail ▾

☐ Any operation

☒ Specific operation(s)

✕ CreateKey ✕ Encrypt

▼ Event Pattern Preview

Copy to clipboard Edit

```
{
  "source": [
    "aws.kms"
  ],
  "detail-type": [
    "AWS API Call via CloudTrail"
  ],
  "detail": {
    "eventSource": [
      "kms.amazonaws.com"
    ],
    "eventName": [
      "CreateKey",
      "Encrypt"
    ]
  }
}
```

► Show sample event(s)

### Targets

Select Target to invoke when an event matches your Event Pattern or when schedule is triggered.

Lambda function

Function\* 

Select function

► Configure version/alias

► Configure input

SNS topic

Topic\* 

NotifyMe

► Configure input

⊕ Add target\*

# Track, detect, and take action

## Tracking

- AWS Config rules
- Amazon CloudWatch Events
- AWS CloudTrail
- Amazon Inspector

## Coordination

- Amazon SWF
- AWS CodePipeline

## Execution

- AWS Lambda

## Securing

- MFA
- IAM policies

## Track/log

- Amazon CloudWatch Logs
- Amazon DynamoDB

## Alert

- Amazon SNS

...

- You have options to implement data controls that meet your business needs
- Take advantage of managed services, and let us do the heavy lifting
- Protect your data but also track, detect, and take action on changes and events



# Detective Controls

Full visibility and transparency over the operation of your deployments in AWS



# VISIBILITY

## Account



AWS  
CloudTrail

Web service that records AWS API calls for your account and delivers log files to you.



AWS  
Config

Resource inventory, configuration history, and configuration change notifications to enable security and governance

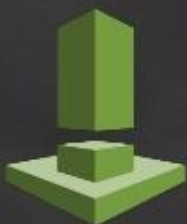
## Resources



Amazon  
CloudWatch

Monitoring service for AWS cloud resources and the applications you run on AWS.

- collect and track metrics
- collect and monitor log files
- set alarms
- automatically react to changes in your AWS resources



Amazon  
Inspector

Automatically assesses applications for vulnerabilities or deviations from best practices

## Network



Flow  
logs

Capture information about the IP traffic going to and from network interfaces in your VPC.

# AWS CloudTrail & CloudWatch



**AWS  
CloudTrail**

- ✓ Enable globally for all AWS Regions
- ✓ Encryption & Integrity Validation
- ✓ Archive & Forward



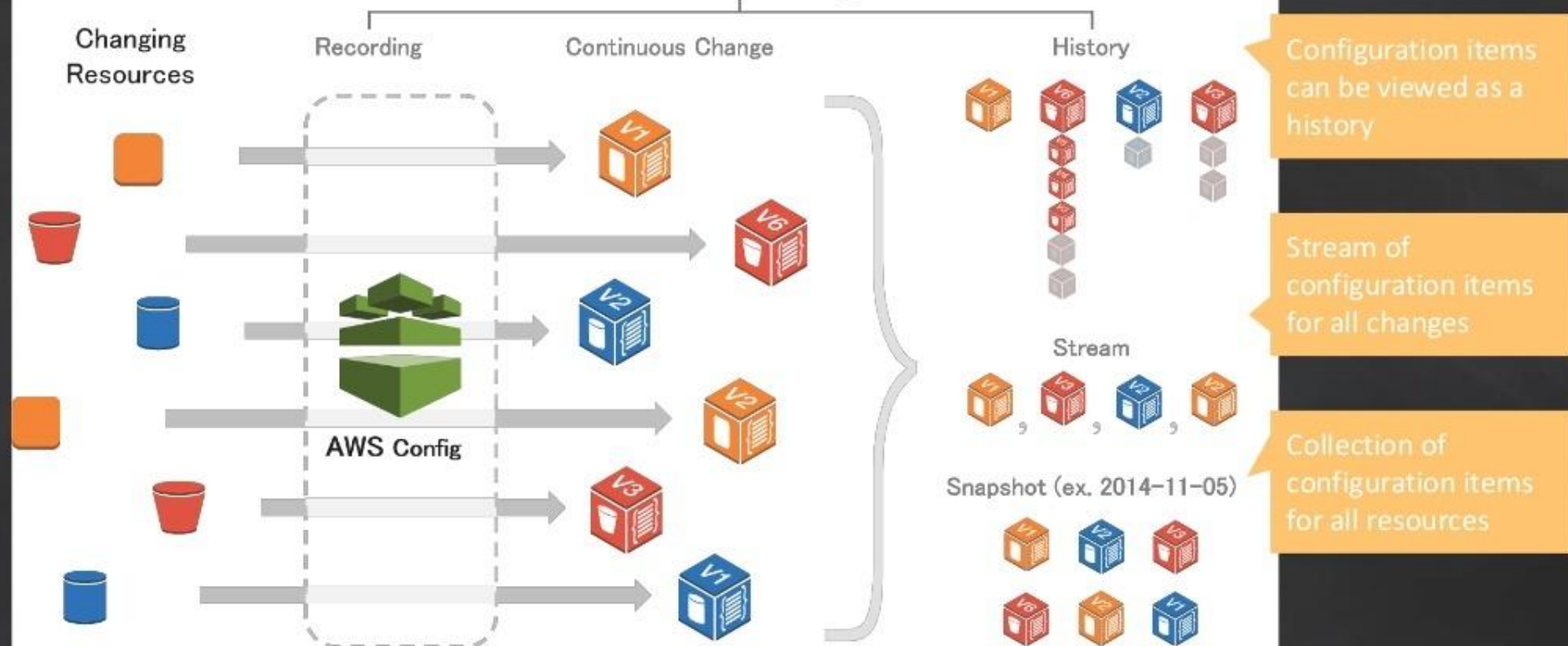
**Amazon  
CloudWatch**

- ✓ Amazon CloudWatch Logs
- ✓ Metrics & Filters
- ✓ Alarms & Notifications

# AWS Config

record configuration  
changes

## AWS Config



# AWS Config



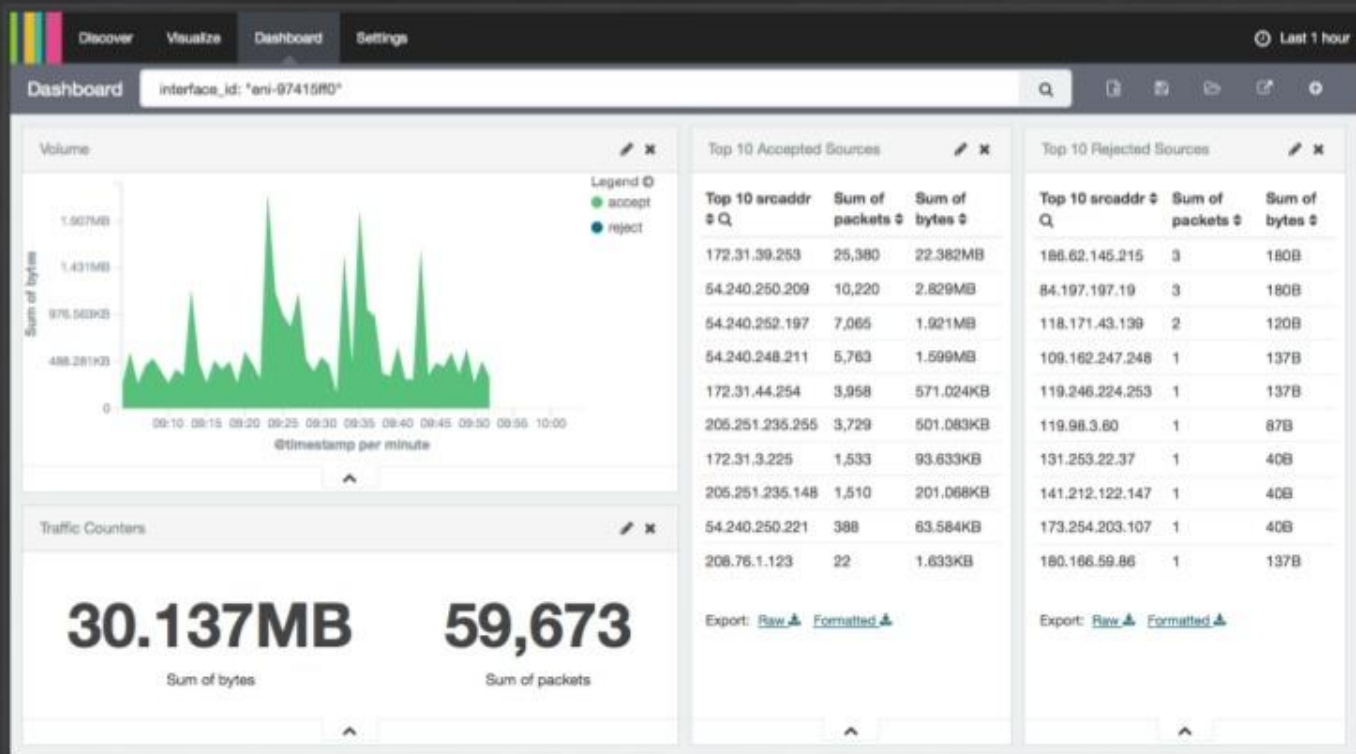
# VPC Flow Logs

- Agentless
- Enable per ENI, per subnet, or per VPC
- Logged to AWS CloudWatch Logs
- Create CloudWatch metrics from log data
- Alarm on those metrics

Interface	Source IP	Source port	Destination IP	Destination port	Protocol	Bytes	Packets	Start/end time	Accept or reject
Event Data									
2 41747	eni-b30b9cd5	119.147.115.32	10.1.1.179	6000	22	6	1	40 1442975475 1442975535	REJECT OK
2 41747	eni-b30b9cd5	169.54.233.117	10.1.1.179	21188	80	6	1	40 1442975535 1442975595	REJECT OK
2 41747	eni-b30b9cd5	212.7.209.6	10.1.1.179	3389	3389	6	1	40 1442975596 1442975655	REJECT OK
2 41747	eni-b30b9cd5	189.134.227.225	10.1.1.179	39664	23	6	2	120 1442975655 1442975716	REJECT OK
2 41747	eni-b30b9cd5	77.85.113.238	10.1.1.179	0	0	1	1	100 1442975656 1442975716	REJECT OK
2 41747	eni-b30b9cd5	10.1.1.179	198.60.73.8	512	123	17	1	76 1442975776 1442975836	ACCEPT OK



# VPC Flow Logs



- Amazon Elasticsearch Service
- Amazon CloudWatch Logs subscriptions

# VPC Flow Logs – CloudWatch Alarms

## Modify Alarm

1. [Select Metric](#) 2. [Define Alarm](#)

### Alarm Threshold

Provide the details and threshold for your alarm. Use the graph on the right to help set the appropriate threshold.

Name:

Description:

Whenever: SG-Rejected

Is:

for:  consecutive period(s)

### Actions

Define what actions are taken when your alarm changes state.

Notification

[Delete](#)

Whenever this alarm:

Send notification to:

[New list](#) [Enter list](#) ⓘ

This notification list is managed in the SNS console.

[+ Notification](#)

[+ AutoScaling Action](#)

[+ EC2 Action](#)

### Alarm Preview

This alarm will trigger when the blue line goes up to or above the red line for a duration of 15 minutes

Excess Rejected Packets  
SG-Rejected >= 100



Namespace: LogMetrics

Metric Name:

Period:

Statistic:

# Responsive Controls

Drive remediation of potential deviations from your security baselines



# AUDITABILITY



AWS Trusted Advisor

Trusted Advisor provides real time guidance to help you provision your resources following AWS best practices.

- reduce cost
- increase performance
- improve security



AWS  
Config  
rule

Config Rules enables you to create rules that automatically check the configuration of AWS resources recorded by AWS Config.

An Introduction to AWS Trusted Advisor



# AWS Config & Config Rules



**AWS  
Config**

- ✓ Record configuration changes continuously
- ✓ Time-series view of resource changes
- ✓ Archive & Compare



**Amazon  
Config Rules**

- ✓ Enforce best practices
- ✓ Automatically roll-back unwanted changes
- ✓ Trigger additional workflow



Cost Optimization



Performance



Security



Fault Tolerance



# Core Checks and Recommendations

Available to all **AWS** customers

Access to the six core Trusted Advisor checks to help increase the security and performance of your environment.

Checks include:

**Security:** Security Groups - Specific Ports Unrestricted, IAM Use, MFA on Root Account, EBS Public Snapshots, RDS Public Snapshots

**Performance:** Service Limits

# Core Checks and Recommendations

Available with Business or Enterprise support plans

Access to the full set of Trusted Advisor checks to help optimize your entire AWS infrastructure.

Additional benefits include:

***Notifications:*** Stay up-to-date with your AWS resource deployment with weekly updates.

***Programmatic access:*** Retrieve and refresh Trusted Advisor results programmatically using AWS Support API.

# AWS Config Rules – Enforce Volume Encryption

## Add AWS managed rule

AWS Config evaluates your AWS resources against this rule when it is triggered.

Name\* encrypted-volumes

A unique name for the rule. 64 characters max. No special characters or spaces.

Description Check whether EBS volumes that are in an attached state are encrypted. Optionally, you can specify the ID of a KMS key to use to encrypt the volume.

Managed rule name ENCRYPTED\_VOLUMES



### Trigger

AWS Config evaluates resources when the trigger occurs.

Trigger type\* ☒ Configuration changes ☐ Periodic

Scope of changes\* ☒ Resources ☐ Tags ☐ All changes

Resources\* EC2: Volume x

Document identifier for Amazon



# encrypted-volumes

**Description** Checks whether EBS volumes that are in an attached state are encrypted. Optionally, you can specify the ID of a KMS key to use to encrypt the volume.

**Trigger type** Configuration changes

**Scope of changes** Resources

**Resource types** EC2 Volume

**Config rule ARN** arn:aws:config:us-east-1:655804063428:config-rule/config-rule-9szf0d

**Parameters** kmsId: null

**Overall rule status** Last successful invocation on May 12, 2017 at 10:52:25 AM

Last successful evaluation on May 12, 2017 at 10:52:26 AM

## Resources evaluated

Click on the icon to view configuration details for the resource when it was last evaluated with this rule.

Resource type	Config timeline	Compliance	Last successful invocation	Last successful evaluation	Manage resource
EC2 Volume	vol-00c787fbaf6fe4dbe	Noncompliant	May 12, 2017 10:52:25 AM	May 12, 2017 10:52:26 AM	
EC2 Volume	vol-03fce825d8c4056ac	Noncompliant	May 12, 2017 10:52:25 AM	May 12, 2017 10:52:25 AM	
EC2 Volume	vol-075f136b21a9d8f	Noncompliant	May 12, 2017 10:52:25 AM	May 12, 2017 10:52:25 AM	

# AWS Artifact



- Audit and compliance portal for on-demand access to download AWS' compliance reports and manage select agreements for ISO, PCI, SOC, and other regulatory standards.
- Benefits:
  - Reports On-Demand
  - Globally Available
  - Easy Identification
  - Quick Assessments
  - Continuous Monitoring
  - Enhanced Transparency

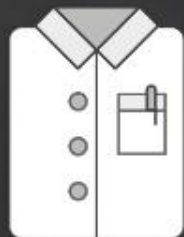
# **Automate Security Functions**



# Evolving the Practice of Security Architecture

- Security architecture as a separate function can no longer exist

Current Security  
Architecture  
Practice

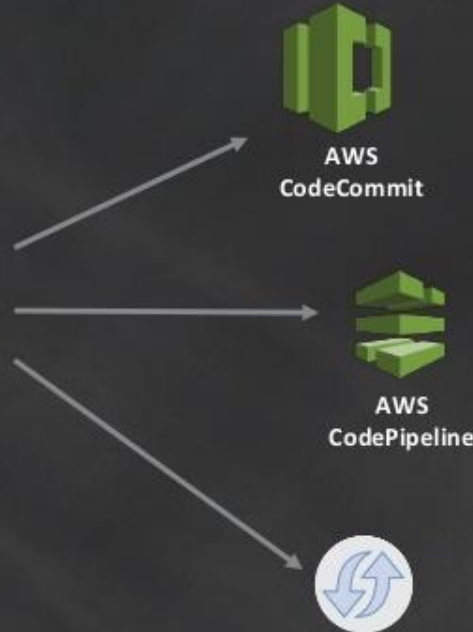
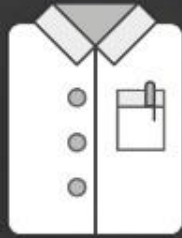


- Static position papers, architecture diagrams & documents
- UI-dependent consoles and technologies
- Auditing, assurance, and compliance are decoupled, separate processes

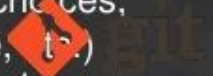
# Evolving the Practice of Security Architecture

- Security architecture can now be part of the 'maker' team

Evolved Security  
Architecture  
Practice



- Architecture artifacts (design choices, narrative, etc.) committed to common repositories
- Complete solutions account for automation
- Solution architectures are living audit/compliance artifacts and evidence in a closed loop



Jenkins

# AWS CloudFormation – Infrastructure as Code



**AWS  
CloudFormation**



**Template**



**Stack**

- Orchestrate changes across AWS Services
  - Use as foundation to Service Catalog products
  - Use with source code repositories to manage infrastructure changes
- JSON-based text file describing infrastructure
- Resources created from a template
  - Can be updated
  - Updates can be restricted

# Change Sets – Create Change Set

## Create change set for r5filtersalarms stack

Select Template

**Specify Details**

Options

Review

### Specify Details

Specify a change set name, description, and parameter values. You can use or change the default parameter values, which are defined in the AWS CloudFormation template. [Learn more.](#)

Name ChangeSet-04192016-1234

Description Add IAM policy changes

### Parameters

Email billshin@amazon.com

Email address to notify when an API activity has triggered an alarm

LogGroupName CloudTrail/us-east-1-LogGroup

Enter CloudWatch Logs log group name. Default is CloudTrail/DefaultLogGroup

# Change Sets

## ChangeSet-04192016-1234

[Other Actions](#)

### Overview

ID `arn:aws:cloudformation:us-east-1:663354267581:changeSet/ChangeSet-04192016-1234/a3a32a98-es9f-46ae-a9fc-0d9e4b9eb075`

Description Add IAM policy changes

Created time 2016-04-19 07:13:31 UTC-0700

Status **CREATE\_COMPLETE**

Stack name `r53filtersalarms`

#### Change set input

#### Changes

The changes CloudFormation will make if you execute this change set.

Viewing 2 of 2

Action	Logical ID	Physical ID	Resource type	Replacement
Add	IAMPolicyChangesAlarm		AWS::CloudWatch::Alarm	
Add	IAMPolicyMetricFilter		AWS::Logs::MetricFilter	

# Change Sets

## ChangeSet-04192016-1235

[Other Actions](#)[Exp](#)

### Overview

**ID** `arn:aws:cloudformation:us-east-1:663354267581:changeSet/ChangeSet-04192016-1235/e42489f4-f307-42e5-9ad4-a878097b98b4`

**Description** Remove CloudTrail configuration alarms

**Created time** 2016-04-19 07:36:12 UTC-0700

**Status** `CREATE_COMPLETE`

**Stack name** `r53f8tersalarms`

### ► Change set input

### ▼ Changes

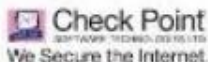
The changes CloudFormation will make if you execute this change set.

Viewing 2 of 2

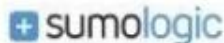
Action	Logical ID	Physical ID	Resource type	Replacement
<a href="#">Remove</a>	CloudTrailChangesAlarm	CloudTrailChanges	AWS::CloudWatch::Alarm	
<a href="#">Remove</a>	CloudTrailChangesMetricFilter	r53f8tersalarms-CloudTrailChangesMetricFilter-CH3PPCBLKVH9	AWS::Logs::MetricFilter	

# AWS Marketplace Security Partners

## Infrastructure Security



## Logging & Monitoring



## Identity & Access Control



## Configuration & Vulnerability Analysis



## Data Protection





***Security is a service team, not a blocker***

*Security is everyone's job*

*Allow flexibility and freedom  
but control the flow and result.*



Pop-up Loft

# THANK YOU!