



# Getting Started With AWS

*-Chad Smith*



# Getting Started With AWS

## Cloud Basics

# What is The Cloud?

*Someone  
Else's  
Computer*

# What is AWS?

*Amazon Web Services (AWS) is the world's most comprehensive and broadly adopted cloud platform, offering over **165** fully featured services from data centers globally. Millions of customers —including the fastest-growing startups, largest enterprises, and leading government agencies—trust AWS to power their infrastructure, become more agile, and lower costs.*

# Why AWS?

Better security

Higher resilience

Increased company agility

Lower cost - sorta\*\*

# AWS General Design Principles

1. Stop guessing your capacity needs
2. Test systems at production scale
3. Automate to make architectural experimentation easier
4. Allow for evolutionary infrastructures
5. Drive architectures using data
6. Improve through game days

# AWS Security Principles

1. Implement a strong identity foundation
2. Enable traceability
3. Apply security at all layers
4. Automate security best practices
5. Protect data in transit and at rest
6. Keep people away from data
7. Prepare for security events

# AWS Building Blocks - Full List

Analytics  
Application Integration  
AR & VR  
AWS Cost Management  
Blockchain  
Business Applications  
Compute  
Customer Engagement  
Database  
Developer Tools  
End User Computing  
Game Tech

Internet of Things  
Machine Learning  
Management & Governance  
Media Services  
Migration & Transfer  
Mobile  
Networking & Content Delivery  
Robotics  
Satellite  
Security, Identity & Compliance  
Storage

# AWS Building Blocks - Course Scope

Analytics

## **Application Integration**

AR & VR

AWS Cost Management

Blockchain

Business Applications

## **Compute**

Customer Engagement

## **Database**

## **Developer Tools**

End User Computing

Game Tech

Internet of Things

Machine Learning

## **Management & Governance**

Media Services

Migration & Transfer

Mobile

## **Networking & Content Delivery**

Robotics

Satellite

## **Security, Identity & Compliance**

## **Storage**

# Account Creation

Sign up here:

<https://portal.aws.amazon.com/billing/signup#/start>

Root account email choice is important!

You must provide billing details!

Learn about the free tier:

<https://aws.amazon.com/free>

# AWS Console Demo Steps

Account login using MFA

Building Block List

CloudWatch dashboard

AWS Config compliance dashboard

AWS SSM dashboard

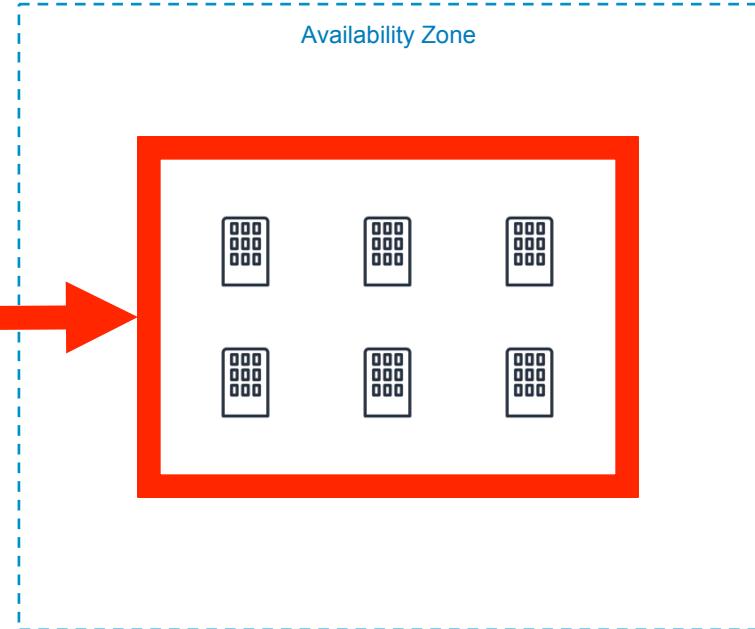


# Getting Started With AWS

## Global Infrastructure

# Service Scope - Availability Zone

2+ Data Centers  
Colocated  
Low latency



# Service Scope - Region

3+ Availability Zones  
Separated by 10s of miles/km

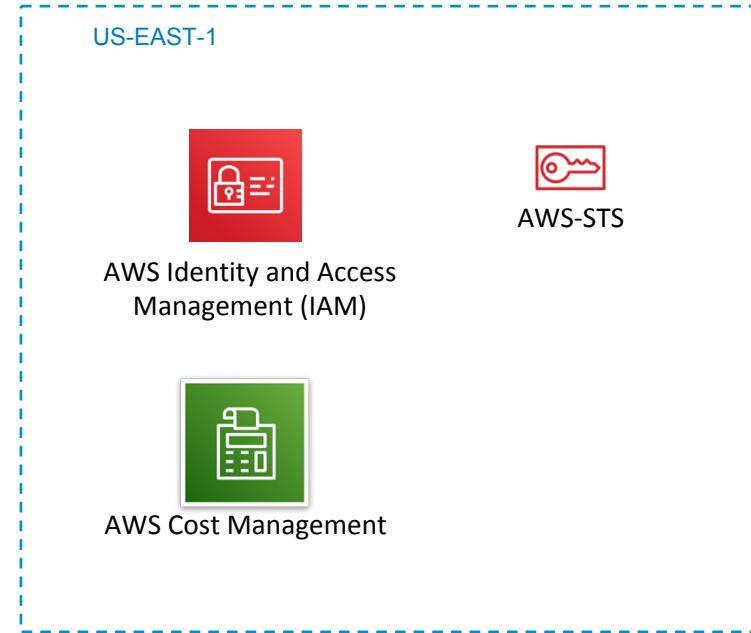


Higher latency  
100% independent



# Service Scope - Global (sorta)

Usually us-east-1  
Available globally  
Can sometimes  
change endpoint\*



# Service Scope - Global (for real)

Uses Edge Locations  
Improve customer  
experience  
Avoid sensitive data



AWS WAF

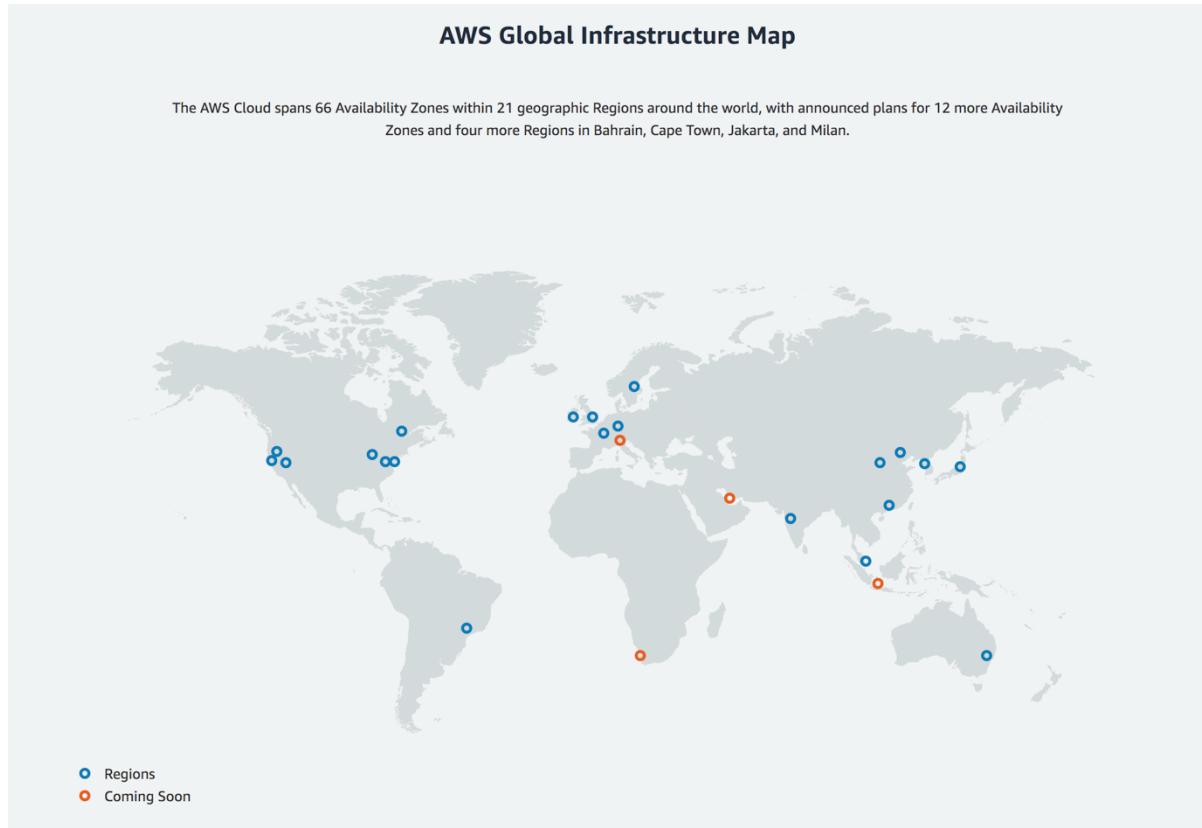


Amazon Route 53



Amazon CloudFront

# Current Global Infrastructure 07/2019





# Getting Started With AWS

## Network - VPC, Route53

# VPC Summary



Virtual Private Network  
Region scoped  
Entirely virtualized  
Full control over security  
Many connectivity options

# VPC Building Blocks

- Application Integration
- Compute
- Database
- Developer Tools
- Management & Governance
- **Networking & Content Delivery**
- **Security, Identity & Compliance**
- Storage

# VPC Main Use Cases



- Lift and shift migration
- Application hosting
- Protected workloads
- Back office software
- Legacy applications

# VPC Resource Creation

Prerequisites

None!

# VPC Resource Creation

## Parameters



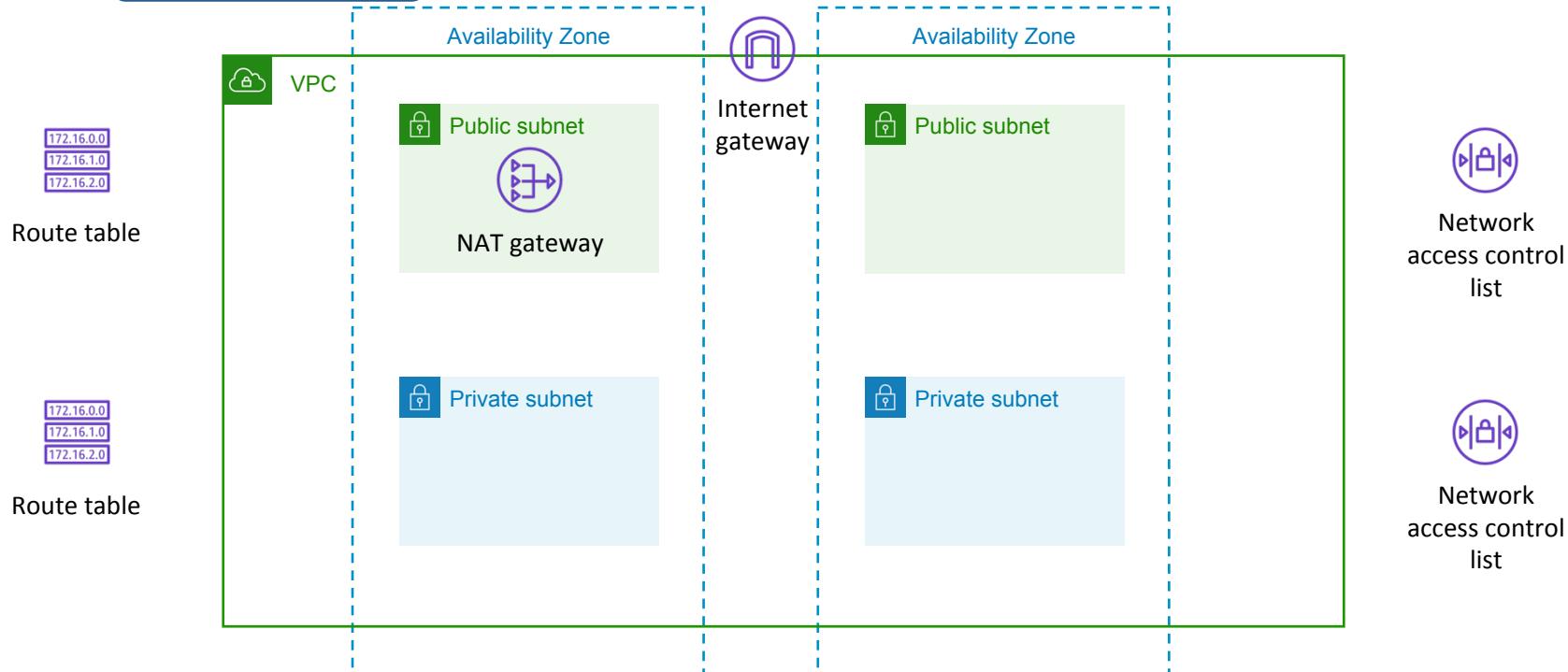
VPC

CIDR RANGE  
e.g. 10.0.0.0/16

That's it?

# VPC Resource Creation

## Parameters



# VPC Operations Summary



- Subnet create/update
- NACL create/update
- Route table create/update
- Egress point creation
- NAT GW creation

# VPC Demo Steps

Create VPC manually using AWS Console

Create VPC using CloudFormation template

# Route 53 Summary



- Global scoped (for real)
- Public DNS zones
- Private DNS zones
- Health checks
- 100% uptime SLA

# Route 53 Building Blocks

- Application Integration
- Compute
- Database
- Developer Tools
- Management & Governance
- **Networking & Content Delivery**
  - Security, Identity & Compliance
  - Storage

# Route 53 Main Use Cases



DNS hosting  
Traffic routing  
Multi-region resilience

# Route 53 Resource Creation

Domain Registration

Test domain availability  
Confirm choice  
That's it!

Record Creation

Enter record name  
Specify record type  
Add further variables

Health Check Creation

Enter endpoint  
Specify priority  
Specify http/https  
Other options

# Route 53 Operations Summary



Domain renewal  
Zone creation  
Record creation/  
updates  
Health check  
management

# Route 53 Demo Steps

Show domain registration workflow

Create private dns zone

Allow resolution in new vpc



# Getting Started With AWS

## Compute - LightSail, EC2, Cloud9, Lambda

# LightSail Summary



AZ Scoped  
Simple virtualization  
Great for new users

# LightSail Building Blocks

- Application Integration
- **Compute**
- Database
- **Developer Tools**
- Management & Governance
- **Networking & Content Delivery**
- Security, Identity & Compliance
- Storage

# LightSail Main Use Cases



“Infrastructure Lite”  
Simple web applications  
Websites  
Dev environments  
Proof of concept work

# LightSail Resource Creation

Prerequisites

None!

# LightSail Resource Creation

## Parameters

Optional

Required



Region

Availability Zone

OS Choice

Blueprint

Userdata

Keypair

Instance Plan

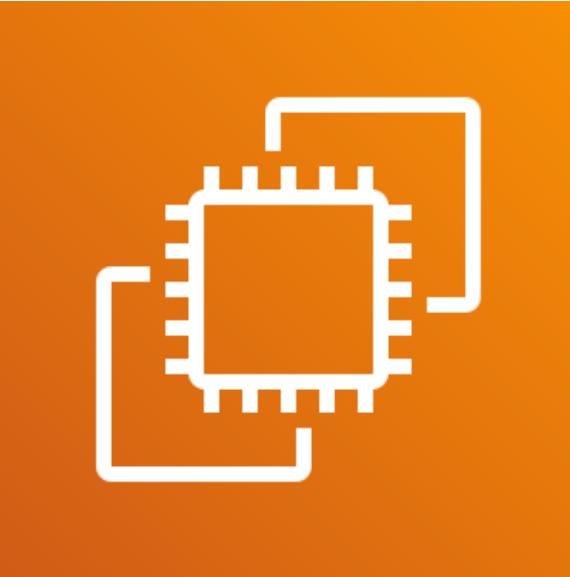
Name + Tags

# LightSail Operations Summary



- Enable outside service connectivity
- Change network port settings
- Manage static IP addresses

# EC2 Summary

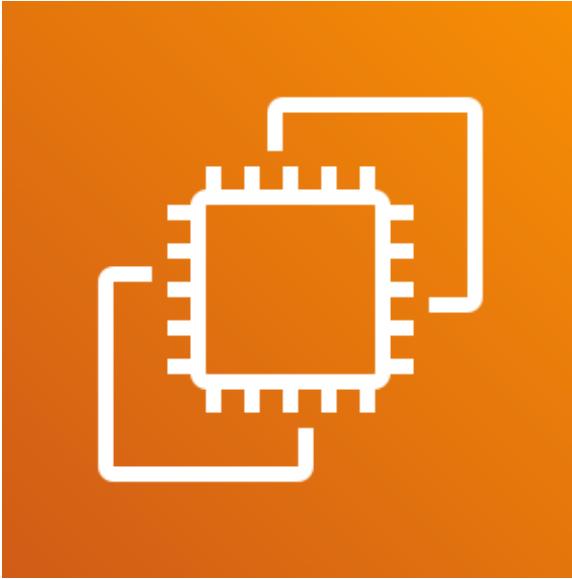


AZ Scoped  
Virtual machines  
Windows or Linux  
Flexible cpu/mem/etc  
The Multi-tool of AWS

# EC2 Building Blocks

- Application Integration
- **Compute**
- Database
- Developer Tools
- Management & Governance
- Networking & Content Delivery
- Security, Identity & Compliance
- Storage

# EC2 Main Use Cases



Web Applications  
Container hosting  
Back-office  
Analytics  
Protected workloads  
Legacy applications

# EC2 Resource Creation

## Prerequisites

VPC Subnet

 Private subnet

 Public subnet

OR

Security Group

Security group

EC2 Keypair

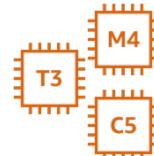


Keypair

# EC2 Resource Creation

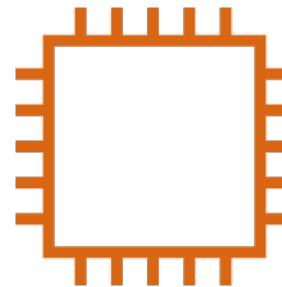
## Parameters

### Instance Type



### VPC/Subnet

### AMI



### IAM Role



### Userdata

### Keypair



### Security Group



### Storage

# EC2 Operations Summary



EVERYTHING in the OS  
Network configuration  
IAM Role updates  
AMI management  
AWS Events  
Cost optimization

# LightSail/EC2 Demo Steps

Show <https://www.ec2instances.info/>

Launch EC2 instance using AWS Console

Connect to EC2 instance and install applications

Launch Lightsail instance with applications

# Cloud9 Summary



AZ scoped  
IDE  
No-hassle development  
Real time collaboration  
AWS ecosystem  
integration

# Cloud9 Building Blocks

- Application Integration
- **Compute**
- Database
- **Developer Tools**
- Management & Governance
- Networking & Content Delivery
- Security, Identity & Compliance
- Storage

# Cloud9 Main Use Cases



Cloud-based  
development  
Team coding  
collaboration

# Cloud9 Resource Creation

Prerequisites

None!

# Cloud9 Resource Creation

Parameters

Env Desc

Optional

Required

Env Name

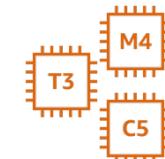


Env Type:  
Dedicated  
OR  
Remote

Network Settings

Platform:  
Amazon Linux  
OR  
Ubuntu

Instance Type



# Cloud9 Operations Summary



Connect existing EC2 or  
LightSail  
  
Share Cloud9  
environment with other  
users

# Lambda Summary



Region scoped  
Serverless computing  
Automated  
deployments  
Automated scaling  
Multiple languages  
Region scoped

# Lambda Building Blocks

- Application Integration
- Compute
- Database
- Developer Tools
- Management & Governance
- Networking & Content Delivery
- Security, Identity & Compliance
- Storage

# Lambda Main Use Cases



Serverless computing  
Real-time processing  
ETL  
IOT  
Web application services

# Lambda Resource Creation

Prerequisites

None!

# Lambda Resource Creation Part 1

Parameters

Code Source

From Scratch

OR

From Blueprint

OR

Serverless  
App Repo

Function Name

Runtime Language

Node.js

OR

Python

OR

Java

OR

Several  
others!

Permissions

Create new  
IAM Role

OR

Use Pre-  
existing

# Lambda Resource Creation Part 2

Parameters

Env  
Variables

Optional

Function Code

Tags

Required

Trigger(s)

Compute  
Resources

Concurrency

Network



Debugging/Error Handling

# Lambda Operations Summary



Function engine  
upgrade

Code updates

Trigger management

Permissions  
management

Resource and timeout  
changes

# Cloud9/Lambda Demo Steps

Launch Cloud9 and show IDE

Explain steps to share IDE for collaboration

Show integration between Cloud9 and Lambda



# Getting Started With AWS

## Storage - EBS, FSx, S3

# EBS Summary



AZ scoped  
Block storage  
Transparent upsize  
SSD or HDD

# EBS Building Blocks

- Application Integration
- Compute
- Database
- Developer Tools
- Management & Governance
- Networking & Content Delivery
- Security, Identity & Compliance
- **Storage**

# EBS Main Use Cases



- Unstructured data
- Binary objects
- Database extent files
- Clustered filesystems
- Temporary storage

# EBS Resource Creation

Prerequisites

# None!

*But an EC2 instance would be nice, since you can't view data without attaching the volume!*

# EBS Resource Creation

Parameters

Size

Optional

Required

Volume Type

Availability Zone



Encryption

Snapshot ID

# EBS Operations Summary



Snapshot management  
Disk upsizing  
Performance  
troubleshooting

# FSx Summary



Region scoped  
Filesystem storage  
Secure and highly  
performant  
Gigabit throughput  
Sub-millisecond latency  
Integrated with S3

# FSx Building Blocks

- Application Integration
- Compute
- Database
- Developer Tools
- Management & Governance
- Networking & Content Delivery
- Security, Identity & Compliance
- **Storage**

# FSx Main Use Cases



Shared datasets  
HPC  
E2E encryption  
S3 data sets on  
filesystem

# FSx Resource Creation

## Prerequisites

VPC Subnet

Security Group

 Private subnet

 Public subnet

OR

Security group

# FSx Resource Creation

Parameters

FS Name



S3 Integration

Storage Capacity



Optional

Required



VPC

Availability Zone

Security group

Private subnet

# FSx Operations Summary



Create filesystem  
Data import  
Filesystem backups

# S3 Summary



Simple Storage Service  
Region scoped  
Object storage  
Each object has unique  
URL  
The “multi-tool” of  
storage services

# S3 Building Blocks

- Application Integration
- Compute
- Database
- Developer Tools
- **Management & Governance**
- **Networking & Content Delivery**
- Security, Identity & Compliance
- **Storage**

# S3 Main Use Cases



- Backups
- Data sets
- Static website assets
- Temporary storage
- Underlying storage for many other services

# S3 Resource Creation

Prerequisites

None!

# S3 Resource Creation Part 1

Parameters

Optional

Required

Region



Bucket name that is  
globally unique and  
conforms to DNS  
standards

There has to be  
more, right?

# S3 Resource Creation Part 2, Options

Parameters

Default bucket  
encryption

Optional

Bucket access  
policy

Static website

Required

Bucket  
versioning

Block Public  
Access

Bucket  
replication

Object storage  
classes

Bucket ACL

Lifecycle  
Policies



LOTS MORE

CORS  
configuration

Object Lock

# S3 Operations Summary



Bucket Policy  
management

Lifecycle policy  
management

Cross region replication

Storage management

# EBS/S3 Demo Steps

Create EBS volumes and attach to EC2

Upsize EBS volume

Create EBS snapshot

Create S3 bucket

Add default SSE to S3 bucket

Create S3 bucket lifecycle policy

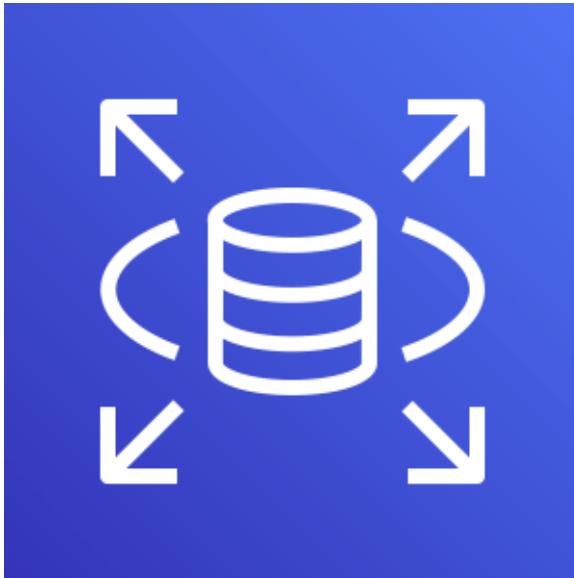
Access S3 bucket from EC2



# Getting Started With AWS

## Database - RDS/Aurora, DynamoDB

# RDS Summary

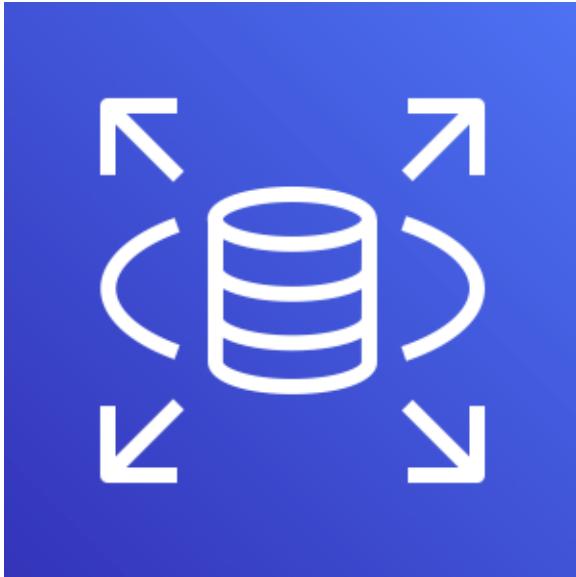


- AZ scoped \*
- Managed relational database
- Small operational overhead
- Cross-region replicas
- Auto Scaling \*
- Serverless \*

# RDS Building Blocks

- Application Integration
- Compute
- **Database**
- Developer Tools
- Management & Governance
- Networking & Content Delivery
- **Security, Identity & Compliance**
- **Storage**

# RDS Main Use Cases



Dev/test databases  
(single AZ)

Prod databases (multi-AZ)

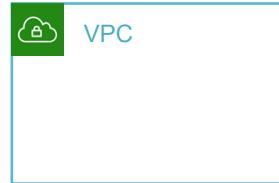
Big data workloads

Data lake ingestion

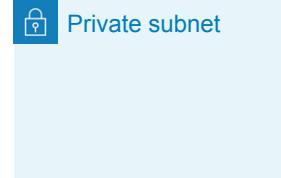
# RDS Resource Creation

## Prerequisites

VPC



Subnet Group



OR



# RDS Resource Creation Part 1

Parameters

Storage

Instance Size

Infrastructure  
resources

Multi-AZ

Network Params

# RDS Resource Creation Part 2

Parameters

Database ID

Credentials

Engine version

Database Port

Engine type

Database  
specific  
configuration

Database Name

Option Group

Parameter Group

# RDS Resource Creation Part 3

Parameters

Encryption

Backups

Platform  
Management

Monitoring

Maint. Window

# RDS Operations Summary



- Disk space upsizing
- RDS instance rightsizing
- Backup management
- Parameter management
- Replica management

# DynamoDB Summary



Region scoped  
Managed NoSQL  
database  
Serverless  
Global table option  
High performance  
Static provisioning OR  
Instant autoscaling

# DynamoDB Building Blocks

- Application Integration
- Compute
- **Database**
- Developer Tools
- Management & Governance
- Networking & Content Delivery
- Security, Identity & Compliance
- **Storage**

# DynamoDB Main Use Cases



- Click tracks
- Session data
- Time series data
- Document storage
- Key/value data

# DynamoDB Resource Creation

Prerequisites

None!

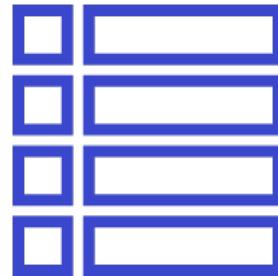
# DynamoDB Resource Creation

Parameters

Optional

Required

Table name



Primary key\*  
This is a **BIG DEAL**.  
Choose wisely.

# DynamoDB Operations Summary



TTL management  
Auto scaling configuration  
Global table management  
Index management

# RDS Demo Steps

Launch RDS instance (MySQL engine)

Show RDS parameter change process

Launch Aurora serverless database



# Getting Started With AWS

## Integration - ELB, Auto Scaling, Beanstalk, ECS

# ELB Summary



Region scoped\*

Elastic Load Balancer

Distribute traffic to instances or containers

Classic LB (layers 4,7)

Application LB (layer 7)

Network LB (layer 4)

# ELB Building Blocks

- Application Integration
- Compute
- Database
- Developer Tools
- Management & Governance
- **Networking & Content Delivery**
- Security, Identity & Compliance
- Storage

# ELB Main Use Cases

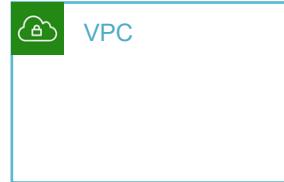


Web proxy  
API front end  
TCP service endpoint

# ELB Resource Creation

## Prerequisites

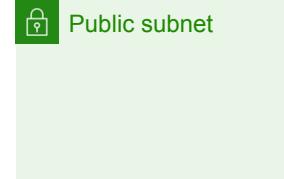
VPC



Subnet(s)



OR



# ELB Resource Creation (CLB/ALB/NLB)

Parameters



VPC

Internet  
Facing (Y/  
N)

Optional

Required

Name



Listener(s)

Security group

Private subnet

# ELB Operations Summary



Listener rule  
management  
Target group  
management  
Health check  
management

# Auto Scaling Summary



Region scoped\*

Multiple service options

Horizontal scaling

Predictive scaling option

Multiple best practices

# Auto Scaling Building Blocks

- Application Integration
- Compute
- Database
- Developer Tools
- **Management & Governance**
- Networking & Content Delivery
- Security, Identity & Compliance
- Storage

# Auto Scaling Main Use Cases

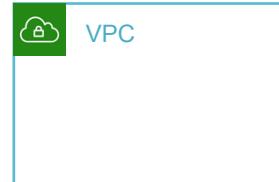


- Web service fleet
- Application servers
- DynamoDB tables
- ECS container services
- RDS Aurora endpoints

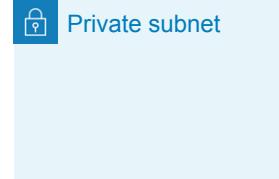
# Auto Scaling Resource Creation

## Prerequisites

VPC



Subnet(s)



OR



# Auto Scaling Resource Creation

Launch  
Template

Auto Scaling  
Group

Auto Scaling  
Policy

Scheduled  
Actions

WHAT to launch  
EC2 instance  
type  
Security Group  
IAM Role  
Pricing model

WHERE to  
launch  
LIMITATIONS of  
launch  
VPC subnets  
ELB association

WHEN to launch  
Based on metrics  
CloudWatch  
Alarm

WHEN to launch  
Based on  
calendar  
Coexist with  
policies

# Auto Scaling Operations Summary



Launch config/template management  
Min/Max updates  
Auto Scaling policy management  
Scheduled Actions creation

# Elastic Beanstalk Summary



Region scoped\*

Elastic Beanstalk

Application environment

ELB, EC2, RDS

Auto Scaling optional

Fully managed

# Elastic Beanstalk Building Blocks

- Application Integration
- **Compute**
- Database
- **Developer Tools**
- Management & Governance
- **Networking & Content Delivery**
- Security, Identity & Compliance
- Storage

# Elastic Beanstalk Main Use Cases

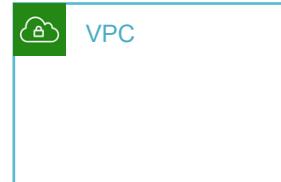


Application hosting  
Dev environments  
Web services

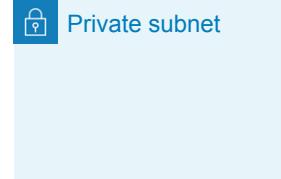
# Elastic Beanstalk Resource Creation

Prerequisites

VPC



Subnet(s)

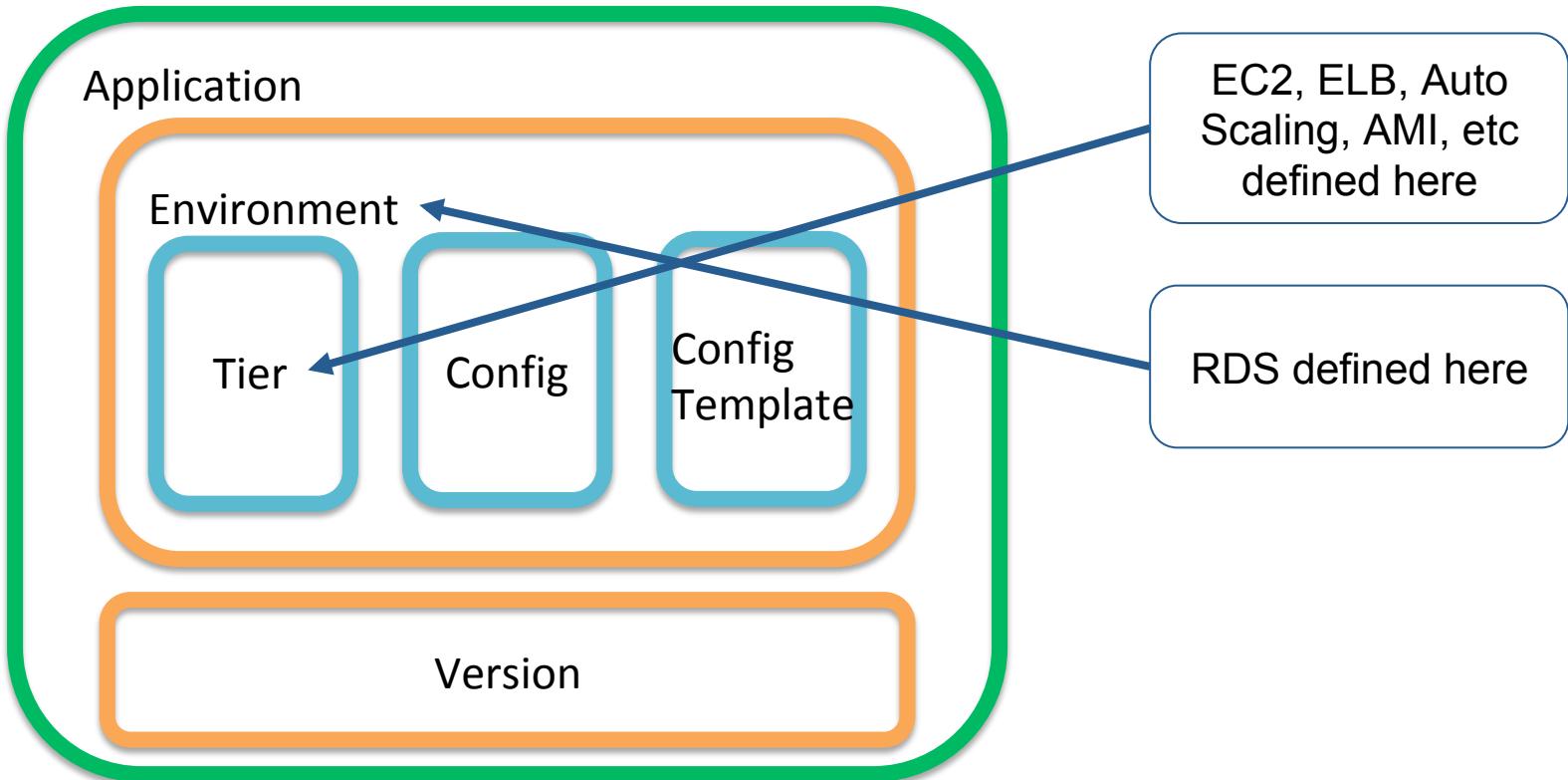


OR



Is this starting to look familiar?

# Elastic Beanstalk Resource Creation



# Elastic Beanstalk Operations Summary



- Application updates
- Application cloning
- OS/AMI updates
- Application container version management

# ECS Summary



Region scoped\*

Elastic Container Service

Docker or Windows

EC2 or Fargate

Auto scaling

Automated deployment

# ECS Building Blocks

- Application Integration
- **Compute**
- Database
- **Developer Tools**
- Management & Governance
- Networking & Content Delivery
- Security, Identity & Compliance
- Storage

# ECS Main Use Cases



Webservice containers  
Application back ends  
Singleton applications

# ECS Resource Creation

## Prerequisites

VPC



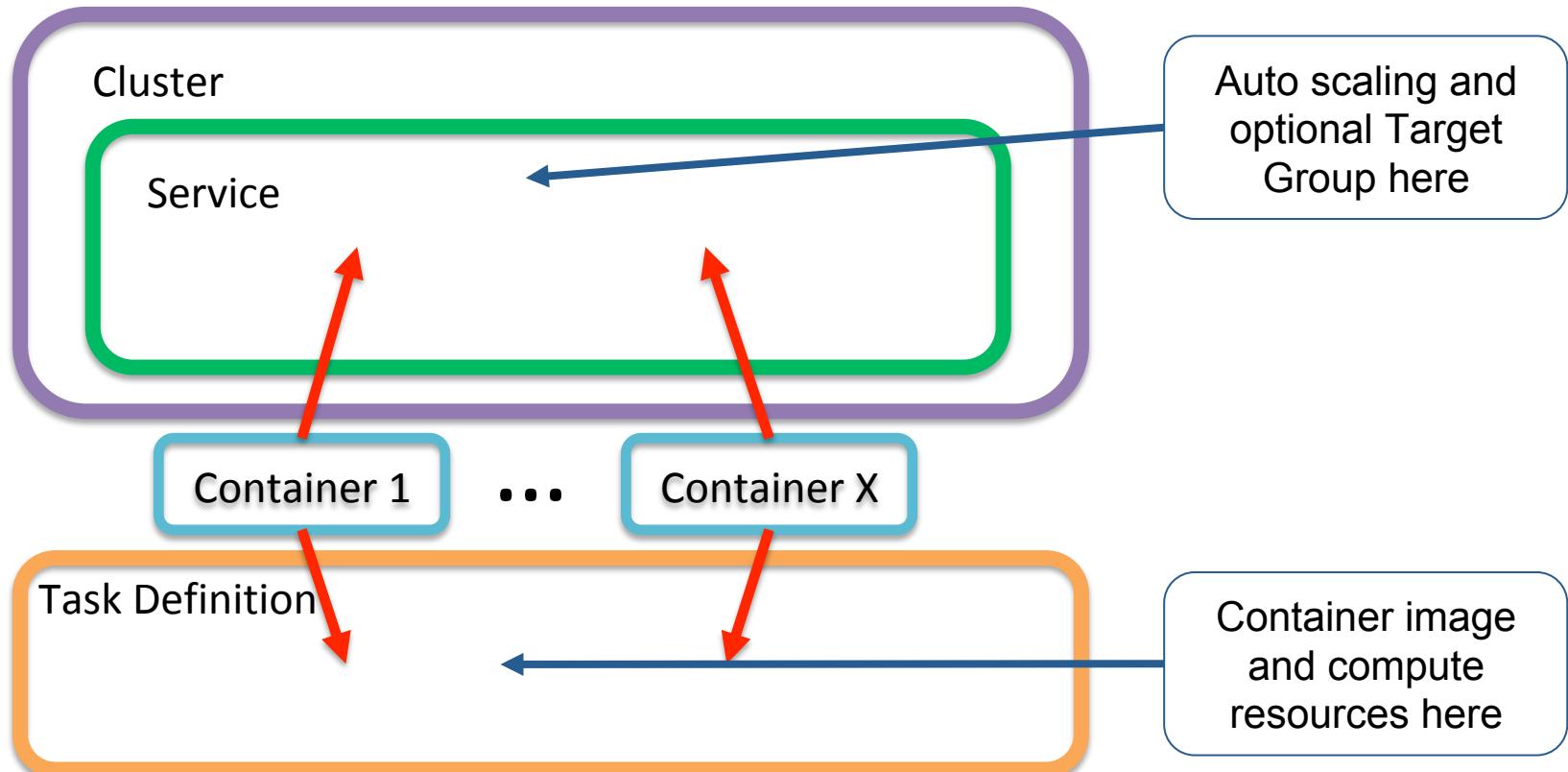
Subnet(s)



OR



# ECS Resource Creation



# ECS Operations Summary



Service deployment  
EC2 instance  
management\*\*  
Log management  
Container repository  
management

# Beanstalk Demo Steps

Create Elastic Beanstalk application

Show process for cloning for new environment



# Getting Started With AWS

## Security Services - IAM, CloudTrail, GuardDuty, Inspector

# IAM Summary



Global scoped (sorta)  
Identity and Access  
Management  
Authentication  
Authorization  
Users & Groups  
Roles & Policies

# IAM Building Blocks

- Application Integration
- Compute
- Database
- Developer Tools
- **Management & Governance**
- Networking & Content Delivery
- **Security, Identity & Compliance**
- Storage

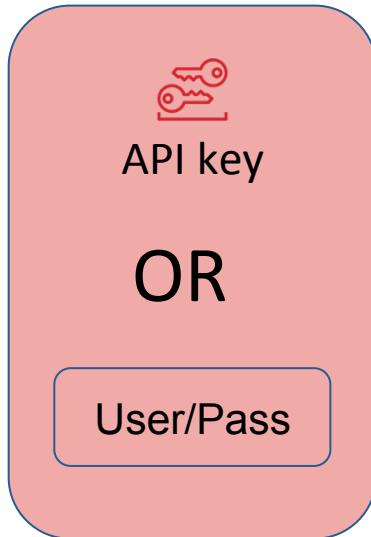
# IAM Main Use Cases



User-based access  
Cross-account perms  
Enable least privilege

# IAM Resource Creation - User

Parameters



Optional

Required



IAM Policy



IAM Group

# IAM Resource Creation - Group

Parameters

Optional

Required



IAM Policy



IAM Policy



IAM Policy



IAM Policy

# IAM Resource Creation - Role

Parameters



Optional

Required



Permissions Policy



Permissions Policy

# IAM Resource Creation - Policy

Parameters

Action(s)

Optional

Required

Service(s)



Resource(s)

Condition(s)

# IAM Operations Summary



Policy management/  
updates

User management

Federation management

Role management

# CloudTrail Summary



Region scoped  
Can enable globally  
Account audit trail  
Logging API actions

# CloudTrail Building Blocks

- Application Integration
- Compute
- Database
- Developer Tools
- **Management & Governance**
- Networking & Content Delivery
- **Security, Identity & Compliance**
- Storage

# CloudTrail Main Use Cases



Governance  
Compliance  
Security controls  
Troubleshooting/RCA

# CloudTrail Resource Creation

Prerequisites

None!

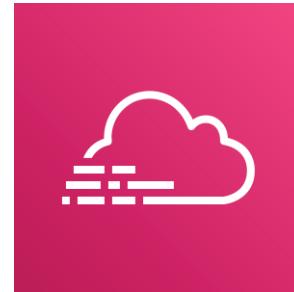
# CloudTrail Resource Creation

## Parameters

Current  
region

OR

All regions



S3 Bucket



CloudWatch  
Logs

Optional

Required

# CloudTrail Operations Summary



Trail management  
Log management

# GuardDuty Summary



Region scoped  
Managed account protection  
Uses ML models  
Generates findings of abnormal behavior

# GuardDuty Building Blocks

- Application Integration
- Compute
- Database
- Developer Tools
- Management & Governance
- Networking & Content Delivery
- **Security, Identity & Compliance**
- Storage

# GuardDuty Main Use Cases



Account monitoring

Detective controls on:

- CloudTrail logs
- VPC Flow logs
- DNS logs

# GuardDuty Resource Creation

Prerequisites

Parameters

None! - you  
just enable  
per-region

# GuardDuty Operations Summary



Forwarding findings  
Finding mitigation  
Finding notification configuration  
Trusted IP list mgmt  
Threat IP list mgmt

# Inspector Summary



Region scoped  
EC2 OS security audit  
Multiple rules packages

# Inspector Building Blocks

- Application Integration
- Compute
- Database
- Developer Tools
- Management & Governance
- Networking & Content Delivery
- **Security, Identity & Compliance**
- Storage

# Inspector Main Use Cases



Facilitate golden AMI  
Audit existing instances  
On-demand rule  
evaluation

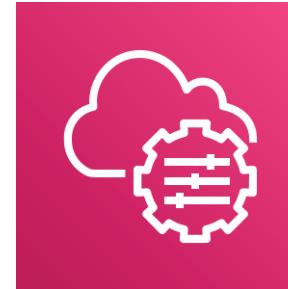
# Inspector Resource Creation

## Prerequisites

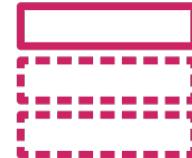


Inspector Agent  
Installed on EC2

Which can be  
installed  
automatically.....if:



Systems Manager  
Agent Installed



You also need an  
SNS topic

# Inspector Resource Creation

## Parameters

### Assessment Template

Which contains 1 or more of the following:

and...

1. Network Reachability
2. Security Best Practices
3. CVE
4. CIS OS Sec Benchmark
5. Runtime Behavior Analysis

### EC2 assessment target(s)

Optional

Required

# Inspector Operations Summary



Agent installation/  
updates  
  
Assessment run  
configuration  
  
Finding mitigation

# IAM/CloudTrail Demo Steps

Create new IAM Policy for read-only

Create new IAM Group

Create new IAM User

Create new IAM Role and test read-only policy

Explore CloudTrail console

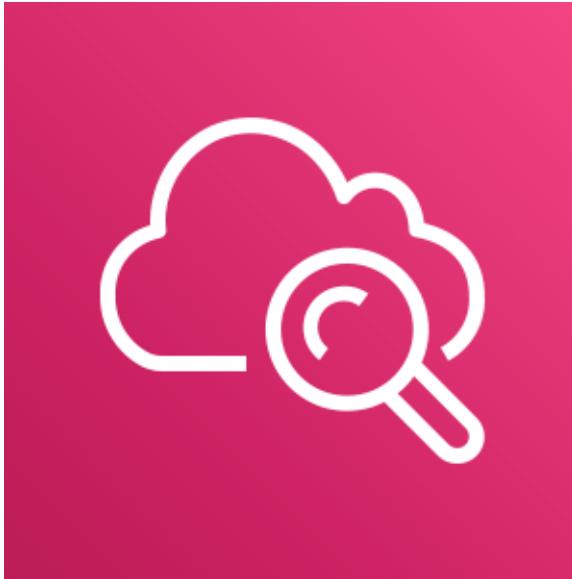
Explore Cloudtrail logs in CloudWatch



# Getting Started With AWS

## Monitoring Services - CloudWatch, SNS

# CloudWatch Summary



Region scoped  
Primary monitoring service  
Metrics  
Alarms  
Events  
Logs  
Highly customizable

# CloudWatch Building Blocks

- Application Integration
- Compute
- Database
- Developer Tools
- **Management & Governance**
- Networking & Content Delivery
- Security, Identity & Compliance
- Storage

# CloudWatch Main Use Cases



Performance monitoring  
Availability monitoring  
Log monitoring  
Event monitoring

# CloudWatch Alarm Resource Creation

## Prerequisites



CloudWatch Alarm

Requires

A number-based metric, either intrinsic to an AWS resource or custom

# CloudWatch Alarm Resource Creation

Parameters

Condition

Optional

Required

Metric



Notification(s)

EC2 Action

Auto Scaling  
Action

# CloudWatch Operations Summary



Alarm management  
Dashboard management  
Log group management  
Event management

# SNS Summary



Region scoped  
Simple Notification  
Service  
Topics and subscribers

# SNS Building Blocks

- Application Integration
- Compute
- Database
- Developer Tools
- Management & Governance
- Networking & Content Delivery
- Security, Identity & Compliance
- Storage

# SNS Main Use Cases



- Email subscribers
- HTTP/HTTPS endpoints
- SMS subscribers
- Mobile push subscribers
- SQS subscribers

# SNS Resource Creation

Prerequisites

None!

# SNS Resource Creation

Parameters

Encryption

Optional

Required

Topic Name



Access Policy

Delivery Status

Delivery Retry

# SNS Operations Summary



Topic policy  
management

Topic subscription  
management

Access policy  
management

# CloudWatch/SNS Demo Steps

Create SNS Topic

Subscribe to SNS Topic

Create CloudWatch alarm with notifications



# Getting Started With AWS

## Management Tools - AWS Backup, EC2 Launch Templates, AWS SSM

# AWS Backup Summary



Region scoped  
Managed backup service  
No direct resources  
Reduce operational overhead

# AWS Backup Building Blocks

- Application Integration
- Compute
- Database
- Developer Tools
- **Management & Governance**
- Networking & Content Delivery
- Security, Identity & Compliance
- **Storage**

# AWS Backup Main Use Cases



EFS  
DynamoDB  
RDS  
EBS  
Storage Gateway

# AWS Backup Plan Resource Creation

Prerequisites

It is nice to have resources  
that need to be backed up,  
but not required!

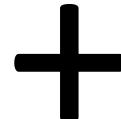
# AWS Backup Plan Resource Creation

Parameters

Use Backup Plan  
Template

OR

Build Backup Plan  
using Wizard



Backup Plan Name



OR

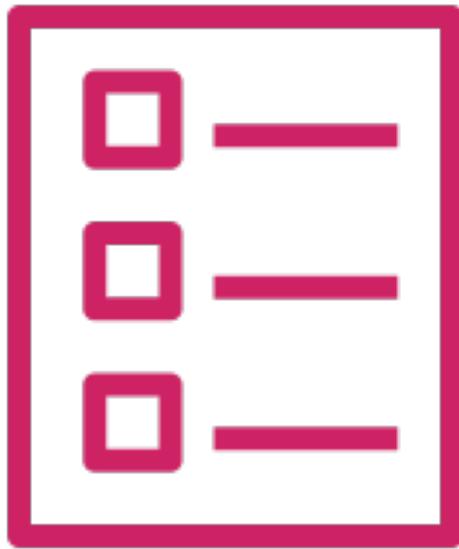
Upload JSON  
Backup Plan

# AWS Backup Operations Summary



Backup plan  
management  
Backup job management  
Resource tagging

# EC2 Launch Templates Summary

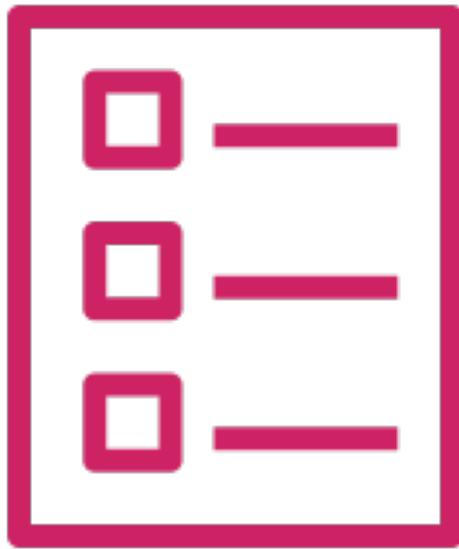


Region scoped  
Configuration for  
launching EC2  
Version controlled

# EC2 Launch Templates Building Blocks

- Application Integration
- Compute
- Database
- Developer Tools
- Management & Governance
- Networking & Content Delivery
- Security, Identity & Compliance
- Storage

# EC2 Launch Templates Main Use Cases



Reduce overhead of EC2 launch  
Consistent launch across regions and accounts

# EC2 Launch Templates Resource Creation

Just like launching an EC2 instance, except you supply the Launch Template name and version name!

# EC2 Launch Templates Operations Summary



Launch template  
creation

Launch template version  
updates

# AWS SSM Summary



Region scoped  
AWS Systems Manager  
Automate operational  
tasks  
Commands  
Patches  
Inventory  
Dashboard

# AWS SSM Building Blocks

- Application Integration
- Compute
- Database
- Developer Tools
- **Management & Governance**
- Networking & Content Delivery
- Security, Identity & Compliance
- Storage

# AWS SSM Main Use Cases



Regular tasks on EC2  
Patch management  
OS configuration  
management  
License management

# AWS SSM Resource Creation

This is a large suite of individual tools. EACH TOOL has their own resource creation process. Start simple!

# AWS SSM Operations Summary



Literally too many to list

# AWS SSM Demo Steps

Use Run Command to execute linux command

Explore Patch Manager

Explore Dashboard



## Q&A Wrap Up