



# AWS EC2 Container Service

WWWeeklies  
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## // AGENDA

- **AWS ECS Overview**
- **Tasks and Services**
- **Service Load Balancing**
- **Docker in AWS**
- **Demo || true**

Highly scalable, high performance container management service that supports **Docker** containers and allows you to run applications on a managed cluster of **EC2** instances.

**Cluster instance is any Docker-enabled instance  
running an ECS agent (in Docker container)**

# AWS ECS

## Tasks and Services

Task Definition



Task



Service



### Set of container definitions

- Docker image
- CPU and memory limits
- Port mappings
- Mount points
- Volumes from
- Links
- Environment variables
- ...

# AWS ECS

## Tasks and Services

### Task Definition



#### Set of container definitions

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### Task

#### An instantiation of task definition, running on a container instance

- Can be scheduled automatically based on CPU/ memory / port requirements
- Can be scheduled "manually" via ECS API
- Can be short-lived or long-lived
- Environment override

### Service

# AWS ECS

## Tasks and Services

### Task Definition



#### Set of container definitions

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### Task

#### An instantiation of task definition, running on a container instance

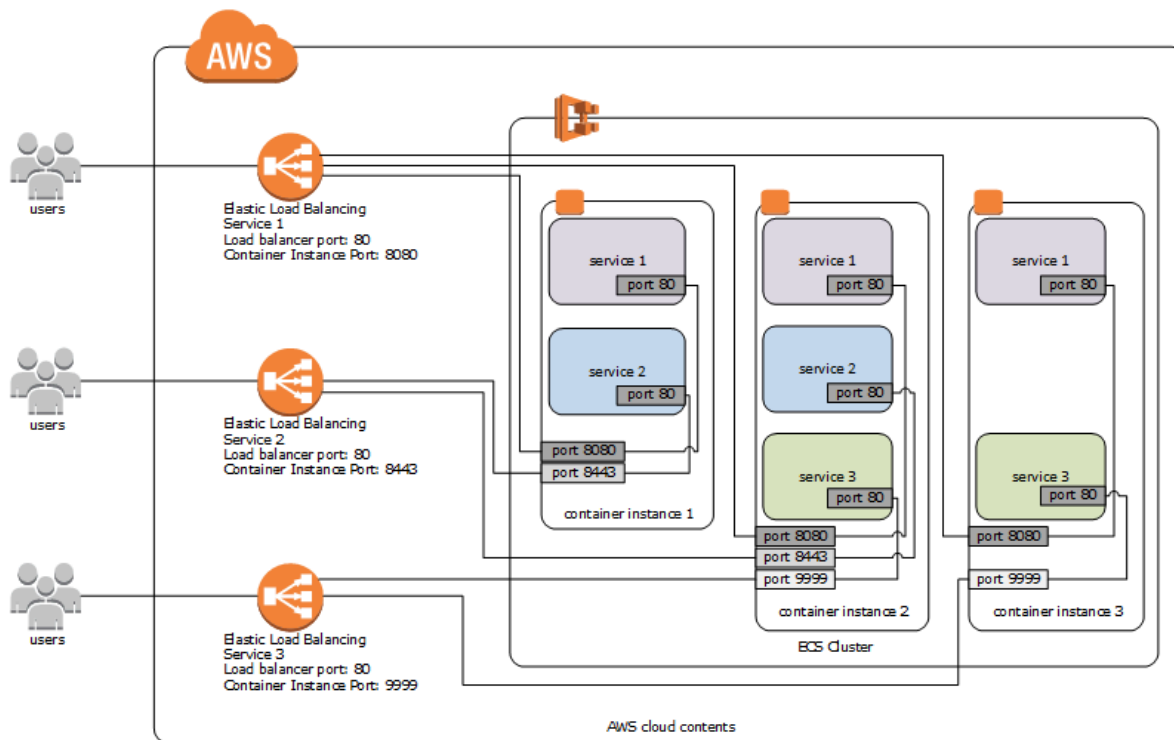
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### Service

#### Services maintain a number of running instances of a task from a given task definition

- Managed by ECS
- Can be updated live
  - Scale up or down
  - Change task definition
  - Rolling update
- Integration with ELB

# Service Load Balancing





# Docker in AWS

Options for running managed Docker environment

Beanstalk + Docker



Beanstalk Multicontainer  
Docker

EC2 Container Service

**Beanstalk is for single web application**

- Single container per instance
- Single exposed port
- Optional load balancer
- Runtime Docker image can be built from Dockerfile on instance itself

# Docker in AWS

Options for running managed Docker environment

## Beanstalk + Docker

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## Beanstalk Multicontainer Docker

**Beanstalk is for single web application**

- Internally uses ECS
- One cluster per Beanstalk environment
- Multiple containers per instance, but single exposed port (single service)
- Single load balancer
- Docker images **MUST** be fetched from a Docker registry

## EC2 Container Service

# Docker in AWS

Options for running managed Docker environment

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## EC2 Container Service

**Multiple tasks / services running on cluster**

- Different services with own load balancers running on same cluster
- Docker images MUST be fetched from a Docker registry
- Higher resource utilization

// Integration with **Docker Swarm**  
and **Docker Compose** is coming

// DEMO

// THANK YOU! QUESTIONS?