

CloudFormation - OpsWorks Demo

AWS OpsWorks Template Snippets

Filter View: All

AWS OpsWorks is an application management service that simplifies a wide range of tasks such as software configuration, application deployment, scaling, and monitoring. AWS CloudFormation is a resource management service that you can use to manage AWS OpsWorks resources, such as AWS OpsWorks stacks, layers, apps, and instances.

AWS OpsWorks Sample PHP App

The following sample template deploys a sample AWS OpsWorks PHP web application that is stored in public Git repository. The AWS OpsWorks stack includes two application servers with a load balancer that distributes incoming traffic evenly across the servers. The AWS OpsWorks stack also includes a back-end MySQL database server to store data. For more information about the sample AWS OpsWorks application, see [Walkthrough: Learn AWS AWS OpsWorks Basics by Creating an Application Server Stack](#) in the *AWS OpsWorks User Guide*.

Note

The `ServiceRoleArn` and `DefaultInstanceProfileArn` properties reference IAM roles that are created after you use AWS OpsWorks for the first time.

JSON

```
{
  "AWSTemplateFormatVersion": "2010-09-09",
  "Parameters": {
    "ServiceRole": {
      "Default": "aws-opsworks-service-role",
      "Description": "The OpsWorks service role",
      "Type": "String",
      "MinLength": "1",
      "MaxLength": "64",
      "AllowedPattern": "[a-zA-Z][a-zA-Z0-9-]*",
      "ConstraintDescription": "must begin with a letter and contain only alphanumeric characters."
    }
  },
```

Search IAM	Create role	Delete role	
Dashboard	Q opsworks Showing 2 results		
Groups	Role name	Description	Trusted entities
Users	☐ aws-opsworks-ec2-role		AWS service: ec2
Roles	☐ aws-opsworks-service-role		AWS service: opsworks
Policies			
Identity providers			
Account settings			
Credential report			

```

1  {} opsworls-cf.json x
2  {
3    "AWSTemplateFormatVersion": "2010-09-09",
4    "Parameters": {
5      "ServiceRole": { ... ←
6    },
7    "InstanceRole": { ... ←
8    },
9    "AppName": { ...
10   },
11   "MysqlRootPassword" : {
12     "Description" : "MysqlRootPassword",
13     "NoEcho" : "true",
14     "Type" : "String"
15   }
16 },
17 "Resources": {
18   "myStack": { ←
19     "Type": "AWS::OpsWorks::Stack",
20     "Properties": {
21       "Name": {
22         "Ref": "AWS::StackName"
23       },
24       "ServiceRoleArn": {
25         "Fn::Join": [
26           "", [ "arn:aws:iam::", { "Ref": "AWS::AccountId" },
27             ":role/", { "Ref": "ServiceRole" } ]
28         ]
29       },
30       "DefaultInstanceProfileArn": {
31         "Fn::Join": [
32           "", [ "arn:aws:iam::", { "Ref": "AWS::AccountId" },
33             ":instance-profile/", { "Ref": "InstanceRole" } ]
34         ]
35       },
36       "UseCustomCookbooks": "true",
37       "CustomCookbooksSource": { ←
38         "Type": "git",
39         "Url": "git://github.com/amazonwebservices/opsworks-example-cookbooks.git"
40       }
41     }
42   }
43 }

```

**Custom cookbook
repository**

```

"myLayer": {
  "Type": "AWS::OpsWorks::Layer",
  "DependsOn": "myApp",
  "Properties": {
    "StackId": {"Ref": "myStack"},
    "Type": "php-app",
    "Shortname": "php-app",
    "EnableAutoHealing": "true",
    "AutoAssignElasticIps": "false",
    "AutoAssignPublicIps": "true",
    "Name": "MyPHPApp",
    "CustomRecipes": {
      "Configure": ["phpapp::appsetup"]
    }
  }
},
"DBLayer": {
  "Type": "AWS::OpsWorks::Layer",
  "DependsOn": "myApp",
  "Properties": {
    "StackId": {"Ref": "myStack"},
    "Type": "db-master",
    "Shortname": "db-layer",
    "EnableAutoHealing": "true",
    "AutoAssignElasticIps": "false",
    "AutoAssignPublicIps": "true",
    "Name": "MyMySQL",
    "CustomRecipes": {
      "Setup": ["phpapp::dbsetup"]
    },
    "Attributes": {
      "MysqlRootPassword": {"Ref": "MysqlRootPassword"},
      "MysqlRootPasswordUbiquitous": "true"
    },
    "VolumeConfigurations": [{"MountPoint": "/vol/mysql", "NumberOfDisks": 1, "Size": 10}]
  }
},

```

```
"ELBAttachment" : {
  "Type" : "AWS::OpsWorks::ElasticLoadBalancerAttachment",
  "Properties" : {
    "ElasticLoadBalancerName" : { "Ref" : "ELB" },
    "LayerId" : { "Ref" : "myLayer" }
  }
},
"ELB" : {
  "Type": "AWS::ElasticLoadBalancing::LoadBalancer",
  "Properties": {
    "AvailabilityZones": { "Fn::GetAZs" : "" } ,
    "Listeners": [{
      "LoadBalancerPort": "80",
      "InstancePort": "80",
      "Protocol": "HTTP",
      "InstanceProtocol": "HTTP"
    }],
    "HealthCheck": {
      "Target": "HTTP:80/",
      "HealthyThreshold": "2",
      "UnhealthyThreshold": "10",
      "Interval": "30",
      "Timeout": "5"
    }
  }
},
"myAppInstance1": {
  "Type": "AWS::OpsWorks::Instance",
  "Properties": {
    "StackId": {"Ref": "myStack"},
    "LayerIds": [{"Ref": "myLayer"}],
    "InstanceType": "m1.small"
  }
},
"myAppInstance2": {
  "Type": "AWS::OpsWorks::Instance",
  "Properties": {
    "StackId": {"Ref": "myStack"},
    "LayerIds": [{"Ref": "myLayer"}],
    "InstanceType": "m1.small"
  }
}
```

```

"myAppInstance2": {
  "Type": "AWS::OpsWorks::Instance",
  "Properties": {
    "StackId": {"Ref": "myStack"},
    "LayerIds": [{"Ref": "myLayer"}],
    "InstanceType": "m1.small"
  }
},
"myDBInstance": {
  "Type": "AWS::OpsWorks::Instance",
  "Properties": {
    "StackId": {"Ref": "myStack"},
    "LayerIds": [{"Ref": "DBLayer"}],
    "InstanceType": "m1.small"
  }
},
"myApp" : {
  "Type" : "AWS::OpsWorks::App",
  "Properties" : {
    "StackId" : {"Ref": "myStack"},
    "Type" : "php",
    "Name" : {"Ref": "AppName"},
    "AppSource" : {
      "Type" : "git",
      "Url" : "git://github.com/amazonwebservices/opsworks-demo-php-simple-app.git",
      "Revision" : "version2"
    },
    "Attributes" : {
      "DocumentRoot" : "web"
    }
  }
}
}

```

Note that we are going to install and setup MySQL database on an EC2 Instance

Application code repository

Create stack

Select Template

Specify Details
Options
Review

Select Template

Select the template that describes the stack that you want to create. A stack is a group of related resources that you manage as a single unit.

Design a template Use AWS CloudFormation Designer to create or modify an existing template. [Learn more.](#)

Design template

Choose a template A template is a JSON/YAML-formatted text file that describes your stack's resources and their properties. [Learn more.](#)

☐ Select a sample template

☐ Upload a template to Amazon S3

Choose file opsworks-cf.json

☒ Specify an Amazon S3 template URL

Cancel Next

Specify Details

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

Stack name

Parameters

AppName The app name

InstanceRole The OpsWorks instance role

MysqlRootPassword MysqlRootPassword

ServiceRole The OpsWorks service role

Note that InstanceRole and ServiceRole are created by opsworks when you create your first stack

[Cancel](#) [Previous](#) [Next](#)

Create Stack [Actions](#) [Design template](#)

Filter: Active

	Stack Name	Created Time	Updated Time	Status	Description
☒	opsworks-cf-demo	2018-11-07 22:50:28 UTC+0550		CREATE_COMPLETE	

Overview Outputs Resources Events Template Parameters Tags Stack Policy Change Sets Rollback Triggers

Key	Value	Resolved Value
AppName	myapp	
InstanceRole	aws-opsworks-ec2-role	
MysqlRootPassword	****	NoEcho
ServiceRole	aws-opsworks-service-role	

Create Stack [Actions](#) [Design template](#)

Filter: Active

	Stack Name	Created Time	Updated Time	Status	Description
☒	opsworks-cf-demo	2018-11-07 22:50:28 UTC+0550		CREATE_COMPLETE	

Overview Outputs Resources Events Template Parameters Tags Stack Policy Change Sets Rollback Triggers

Logical ID	Physical ID	Type	Status	Status Reason
DBLayer	6afcf815-9a17-4702-a788-2b50b237b040	AWS::OpsWorks::Layer	CREATE_COMPLETE	
ELB	opsworks-cf-de-ELB-96FD9R66ZWJP	AWS::ElasticLoadBalancing::LoadBala...	CREATE_COMPLETE	
ELBAttachment	opsw-ELBAI-RD7L45KPN1QC	AWS::OpsWorks::ElasticLoadBalancer...	CREATE_COMPLETE	
myApp	7e058ccc-e1d8-45c1-9a2f-ee0039f0ab1e	AWS::OpsWorks::App	CREATE_COMPLETE	
myAppInstance1	e02829d5-04c3-49d5-95d6-d8ae1faa4701	AWS::OpsWorks::Instance	CREATE_COMPLETE	
myAppInstance2	d15c0590-6858-4509-8a64-1ca5bc6fc1ea	AWS::OpsWorks::Instance	CREATE_COMPLETE	
myDBInstance	3ea490d3-ee45-47c0-86ad-94afa87dddfb	AWS::OpsWorks::Instance	CREATE_COMPLETE	
myLayer	6e56f211-06ef-4856-9c81-d58a956de8b3	AWS::OpsWorks::Layer	CREATE_COMPLETE	
myStack	3b589b8e-a0b7-48a2-beb6-1781fcdf0d92	AWS::OpsWorks::Stack	CREATE_COMPLETE	

Create Load Balancer

Actions

Filter by tags and attributes or search by keyword

1 to 1 of 1

Name	DNS name	State	VPC ID	Availability Zones	Type
opsworlks-cf-de-ELB-96FD9R66ZWJP	opsworlks-cf-de-ELB-96FD9R66ZWJP-687142456.us-east-1.elb.amazonaws.com		vpc-2a011251	us-east-1a, us-east-1b, us-east-1...	classic

Load balancer: opsworlks-cf-de-ELB-96FD9R66ZWJP

Description

Instances

Health Check

Listeners

Monitoring

Tags

Migration

Basic Configuration

Name:

opsworlks-cf-de-ELB-96FD9R66ZWJP

* DNS name:

opsworlks-cf-de-ELB-96FD9R66ZWJP-687142456.us-east-1.elb.amazonaws.com (A Record)

Type:

Classic (Migrate Now)

Scheme:

Internet-facing

Availability Zones:

subnet-09e00037 - us-east-1e,
 subnet-3707627d - us-east-1d,
 subnet-732ef82f - us-east-1a,
 subnet-88be2187 - us-east-1f,
 subnet-b004d7d7 - us-east-1b,
 subnet-d070a0fe - us-east-1c

Creation time:

November 7, 2018 at 10:50:33 PM UTC+5:30

Hosted zone:

Z35SXDOTRQ7X7K

Status:

2 of 2 instances in service

VPC:

vpc-2a011251

Port Configuration

Port Configuration:

80 (HTTP) forwarding to 80 (HTTP)

Stickiness: Disabled

Launch Instance

Connect

Actions

Filter by tags and attributes or search by keyword

1 to 4 of 4

Name	Instance ID	Instance Type	Instance State	Status Checks	Key Name	Launch Time	Security Groups
opsworlks-cf-demo - db-master1	i-04a0c645e43cc2b8b	m1.small	running	2/2 checks ...		November 7, 2018 at 10:50:...	AWS-OpsWorks-...
opsworlks-cf-demo - php-app1	i-01fe3e51f192feb40	m1.small	running	2/2 checks ...		November 7, 2018 at 10:50:...	AWS-OpsWorks-...
opsworlks-cf-demo - php-app1	i-0c85d79fbf82e033	m1.small	running	2/2 checks ...		November 7, 2018 at 10:50:...	AWS-OpsWorks-...

Instance: i-04a0c645e43cc2b8b (opsworlks-cf-demo - db-master1)

Public DNS: ec2-54-208-31-106.compute-1.amazonaws.com

Description

Status Checks

Monitoring

Tags

Instance ID

i-04a0c645e43cc2b8b

Instance state

running

Instance type

m1.small

Elastic IPs

Availability zone

us-east-1a

Security groups

AWS-OpsWorks-Default-Server, AWS-OpsWorks-DB-Master-Server, view inbound rules, view outbound rules

Scheduled events

No scheduled events

AMI ID

amzn-ami-hvm-2014.03.2.x86_64.manifest.xml (ami-64867b0c)

Platform

-

IAM role

aws-opsworks-ec2-role

Key pair name

-

Owner

472821263165

Launch time

November 7, 2018 at 10:50:48 PM UTC+5:30 (less than one hour)

Public DNS (IPv4)

ec2-54-208-31-106.compute-1.amazonaws.com

IPv4 Public IP

54.208.31.106

IPv6 IPs

-

Private DNS

ip-172-31-43-200.ec2.internal

Private IPs

172.31.43.200

Secondary private IPs

VPC ID

vpc-2a011251

Subnet ID

subnet-732ef82f

Network interfaces

eth0

Source/dest. check

True

T2/T3 Unlimited

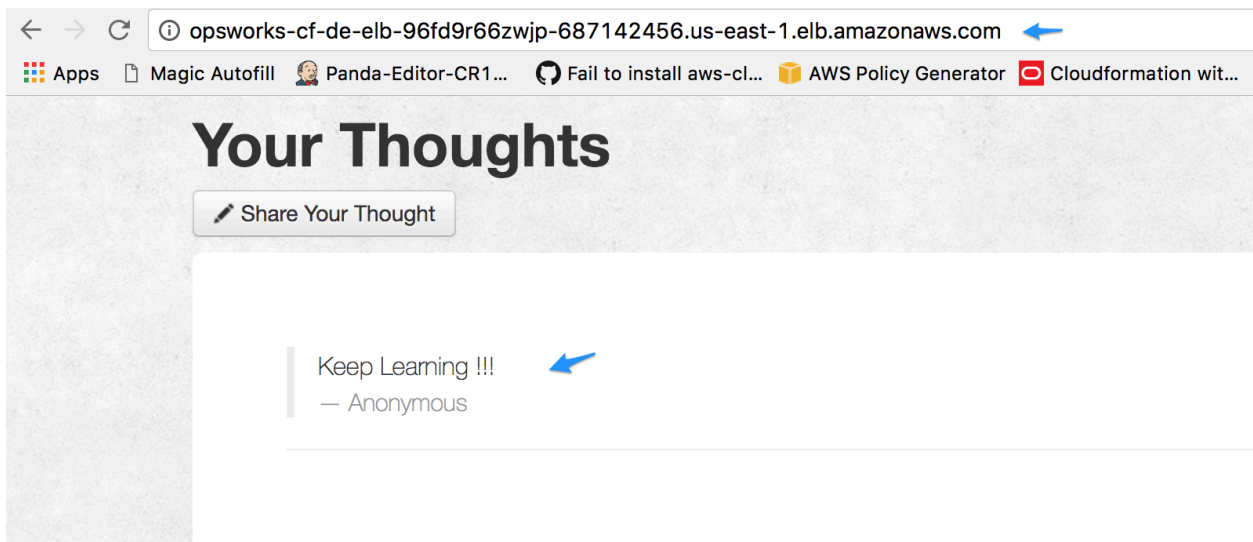
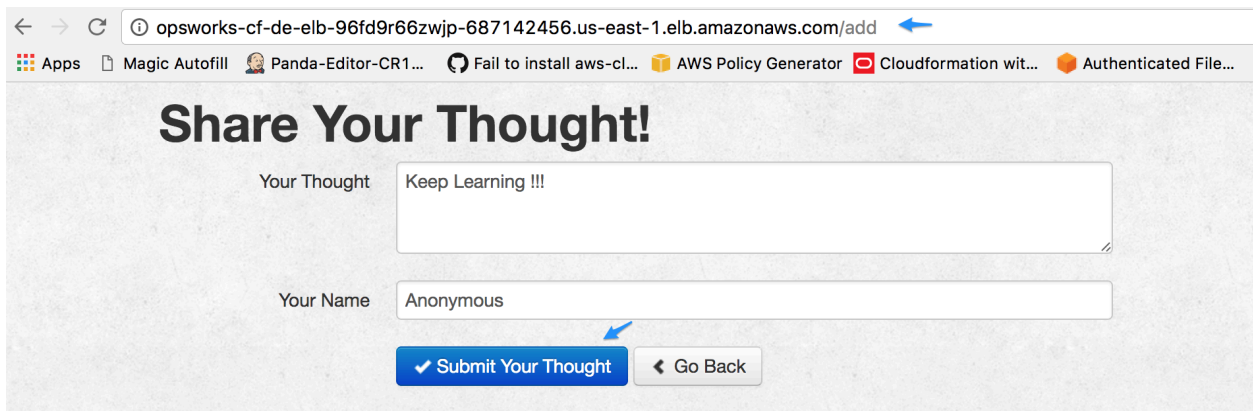
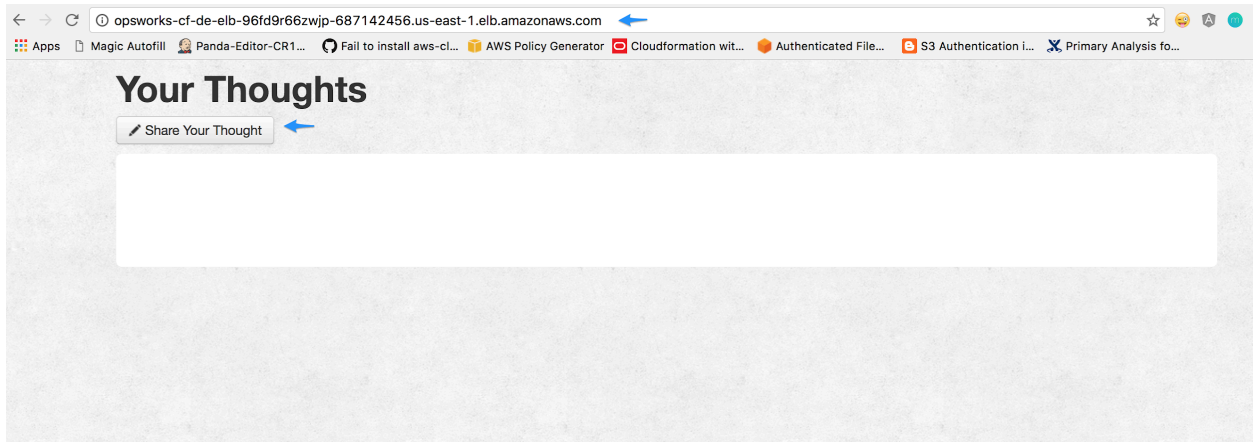
-

EBS-optimized

False

Root device type

instance-store



OpsWorks

Stacks > Select stack

OpsWorks Stacks

Stacks

Users

OpsWorks for Chef Automate

Chef Automate servers

OpsWorks for Puppet Enterprise

Puppet Enterprise servers

OpsWorks Stacks

Add stack

Register instances

Regional API endpoints are default for new stacks.

AWS OpsWorks changed the default API endpoint for new stacks created in the console. When you create a stack, the region of the API endpoint will match the region you choose for your stack. Be aware that if you create a stack in a different API endpoint, your existing AWS SDK or CLI tooling must support them, and might require changes.

Search

Stack name

Resource region

Layers

Instances

Apps

Actions

opsworks-cf-demo

us-east-1

2

3

1

edit

clone

delete

+ Stack

Create Stack

Actions

Design template

Filter: Active

By Stack Name

Stack Name

Created Time

opsworks-cf-demo

2018-11-07 22:50:29

Overview

Outputs

Resources

Events

Template

Parameters

Logical ID

Physical ID

myApp

7e058ccc-e1d8-45c1-9a2f-ee0039f0ab1e

AWS::OpsWorks::App

CREATE_COMPLETE

myAppInstance1

e02829d5-04c3-49d5-95d6-d8ae1faa4701

AWS::OpsWorks::Instance

CREATE_COMPLETE

myAppInstance2

d15c0590-6858-4509-8a64-1ca5bc6fc1ea

AWS::OpsWorks::Instance

CREATE_COMPLETE

myDBInstance

3ea490d3-ee45-47c0-86ad-94afa87dddfb

AWS::OpsWorks::Instance

CREATE_COMPLETE

myLayer

6e56f211-06ef-4856-9c81-d58a956de8b3

AWS::OpsWorks::Layer

CREATE_COMPLETE

myStack

3b589b8e-a0b7-48a2-beb6-1781caf0d92

AWS::OpsWorks::Stack

CREATE_COMPLETE

Delete Stack

Are you sure you want to delete this stack?

Stack name: opsworks-cf-demo

Deleting a stack deletes all stack resources.

Cancel

Yes, Delete

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