

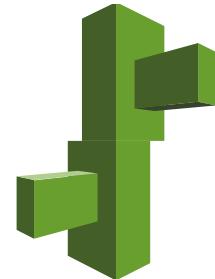
# はじめてのElastic Beanstalk

Amazon Data Services Japan



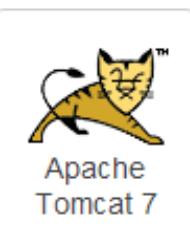
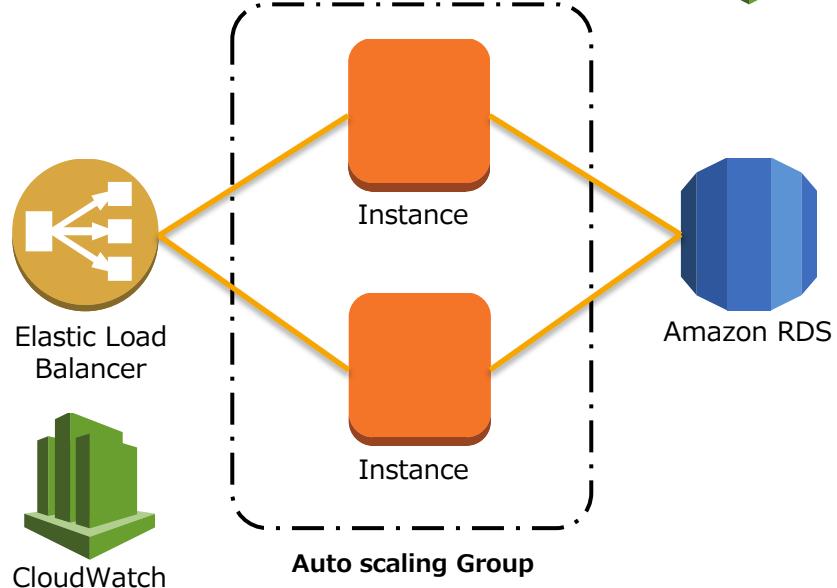
# Elastic Beanstalkとは

- AWS上のベストプラクティス構成を自動作成
- コードをデプロイするだけでWebアプリケーションを開始



 git  
WAR

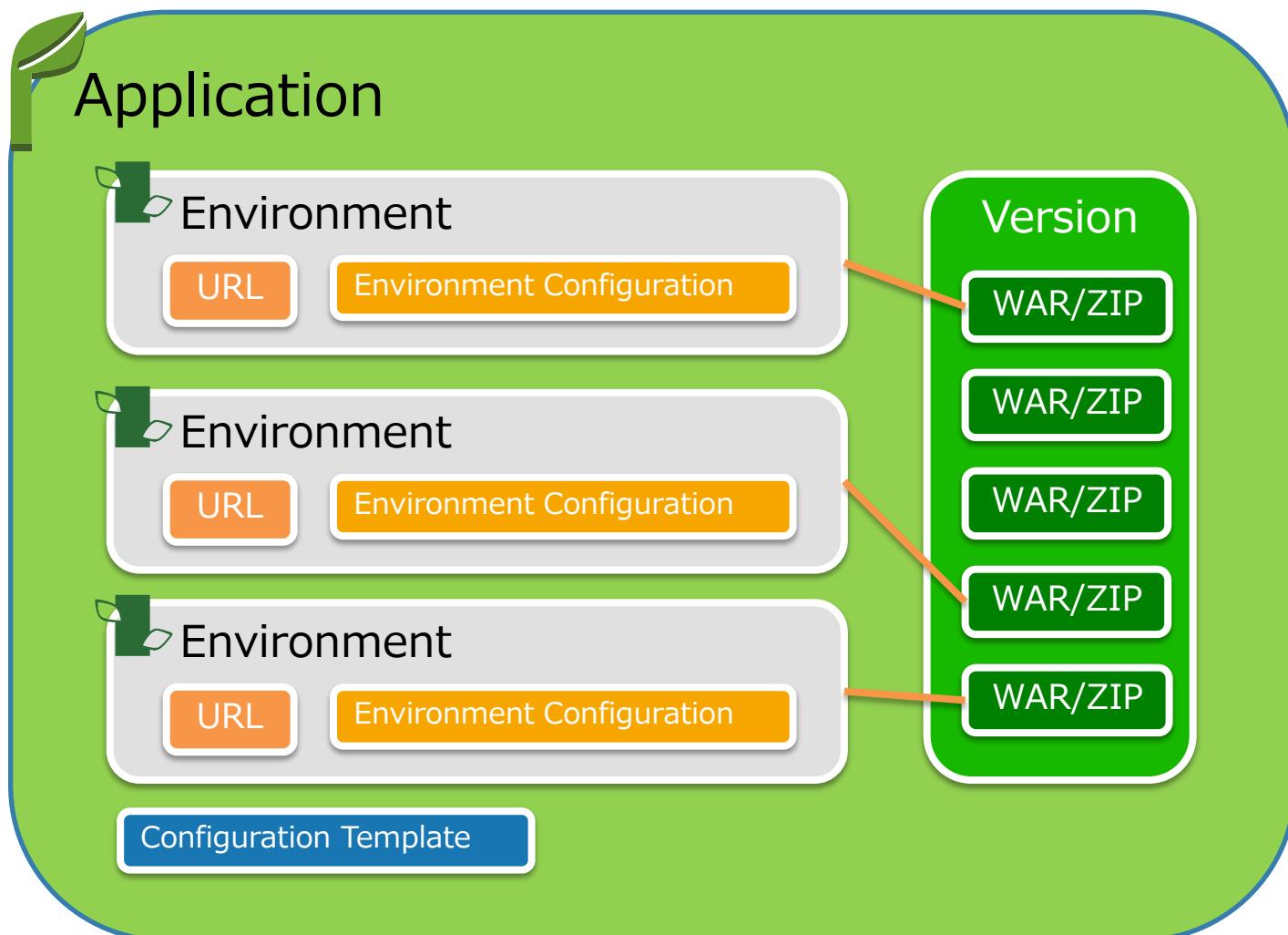
deploy!



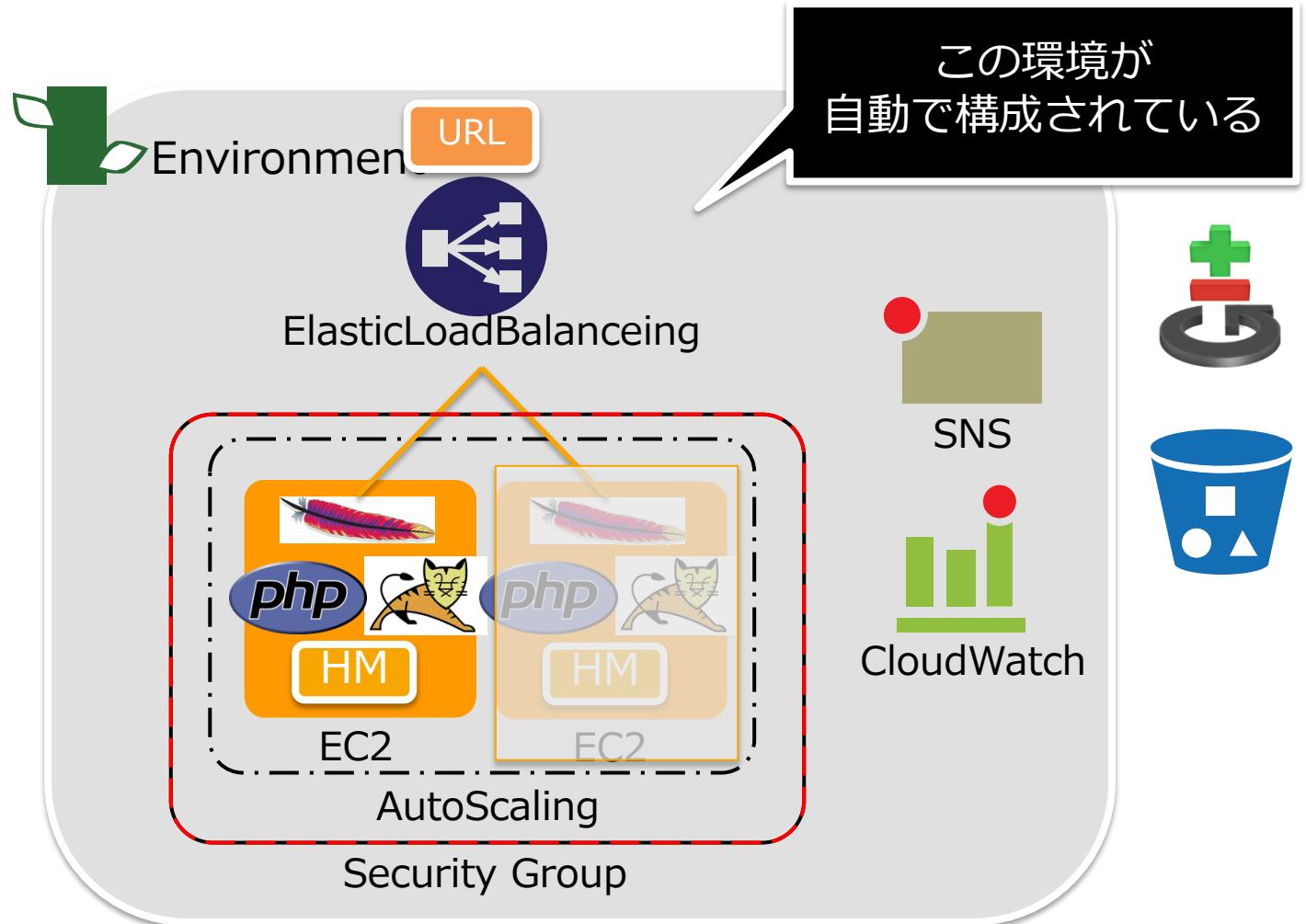
Windows Server 2012



# ElasticBeanstalkの論理構成



# 各環境の中を覗くと



# アプリケーションの作成

Application



# アプリケーションと環境の作成

希望のアプリケーションコンテナを選択してStartを押す

You do not have any AWS Elastic Beanstalk applications launched. AWS Elastic Beanstalk makes it even easier to deploy and manage scalable and fault-tolerant applications on the AWS cloud, while retaining the ability to control the underlying resources. To get started, simply upload your application to AWS Elastic Beanstalk and within minutes access your application running on AWS's infrastructure services. [Learn more about creating and launching your applications using AWS Elastic Beanstalk—](#)

Select your platform and click start

Launch an Elastic Beanstalk environment to get started. You can then upload your own application or customize the environment.



Apache  
Tomcat 6



Apache  
Tomcat 7



Windows Server



IIS 8



PHP 5.4



Python



Ruby 1.8.7



Ruby 1.9.3



Customize...

[Start](#)

# アプリケーションと環境の作成

環境の構成が終わるのを待つ

The screenshot shows two instances of the AWS Elastic Beanstalk console side-by-side. Both instances have the title "My First Elastic Beanstalk Application".

**Left Instance (Original Application):**

- Elastic Beanstalk Application Details:**
  - Overview:** Application Description: This is the sample application provided by Amazon Web Services for demonstrating AWS Elastic Beanstalk.
  - Events:** Created on: 2013-01-10 15:32 GMT+0900
  - Versions:** Edit Application Description | Delete This Application
- My First Elastic Beanstalk Application Environments:**
  - Default-Environment:** Latest Event: Using elasticbeanstalk-ap-southeast-2-40
  - Environment Details:** Overview (highlighted)

**Right Instance (New Application):**

- Elastic Beanstalk Application Details:**
  - Overview:** Application Description: This is the sample application provided by Amazon Web Services for demonstrating AWS Elastic Beanstalk.
  - Events:** Created on: 2013-01-10 15:32 GMT+0900
  - Versions:** Edit Application Description | Delete This Application
- My First Elastic Beanstalk Application Environments:**
  - Default-Environment:** Successfully running version Sample Application.
  - Environment Details:** Overview (highlighted)

A large orange arrow points from the left instance towards the right instance, indicating the progression from creating a new application to creating its first environment.

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# アプリケーションと環境の作成

## 初期バージョンにアクセス

My First Elastic Beanstalk Application

Elastic Beanstalk Application Details

Application Description: This is the sample application provided by Amazon Web Services for demonstrating AWS Elastic Beanstalk.

Created on: 2013-01-10 15:32 GMT+0900

Edit Application Description | Delete This Application

My First Elastic Beanstalk Application Environments

Default-Environment  
Successfully running version Sample Application.

Environment Details

URL: <http://Default-Environment-mgghc65dfg.elasticbeanstalk.com>

Running Version: Sample Application

Container Type: 64bit Amazon Linux running PHP 5.4

Changed on: 2013-01-10 15:38 GMT+0900

Deploy a Different Version | Edit Configuration

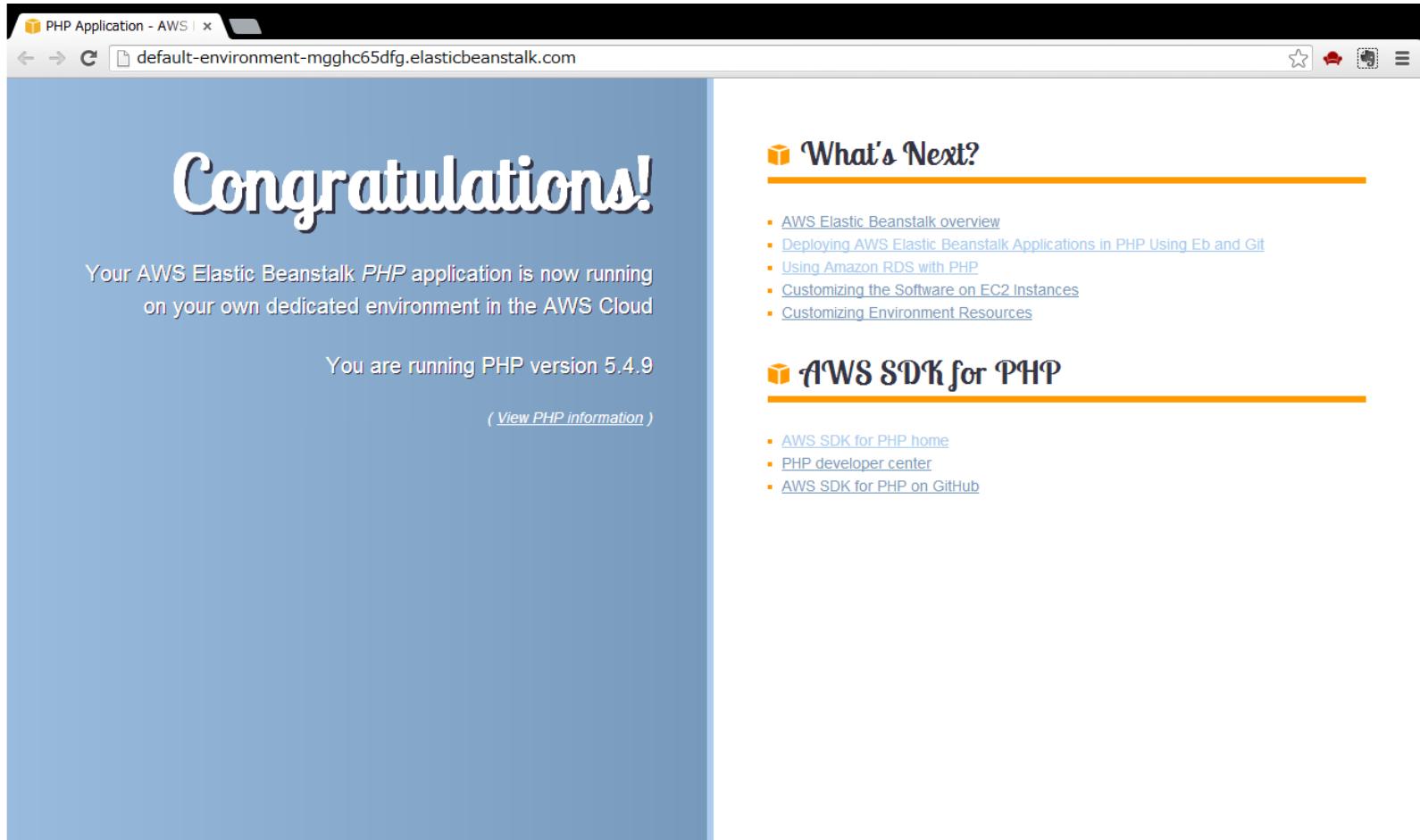
Upload New Version | Launch New Environment | Create New Application

Refresh | View Running Version | Actions

Click

# アプリケーションと環境の作成

## ■ デプロイされたサンプルアプリケーションを確認



The screenshot shows a web browser window titled "PHP Application - AWS". The address bar displays the URL "default-environment-mgghc65dfg.elasticbeanstalk.com". The main content of the page is a large "Congratulations!" message. Below it, text states: "Your AWS Elastic Beanstalk PHP application is now running on your own dedicated environment in the AWS Cloud". It also mentions "You are running PHP version 5.4.9" and provides a link "(View PHP information)". To the right of the main content, there is a sidebar titled "What's Next?" which lists several links related to AWS Elastic Beanstalk and PHP development. Another section titled "AWS SDK for PHP" is also visible.

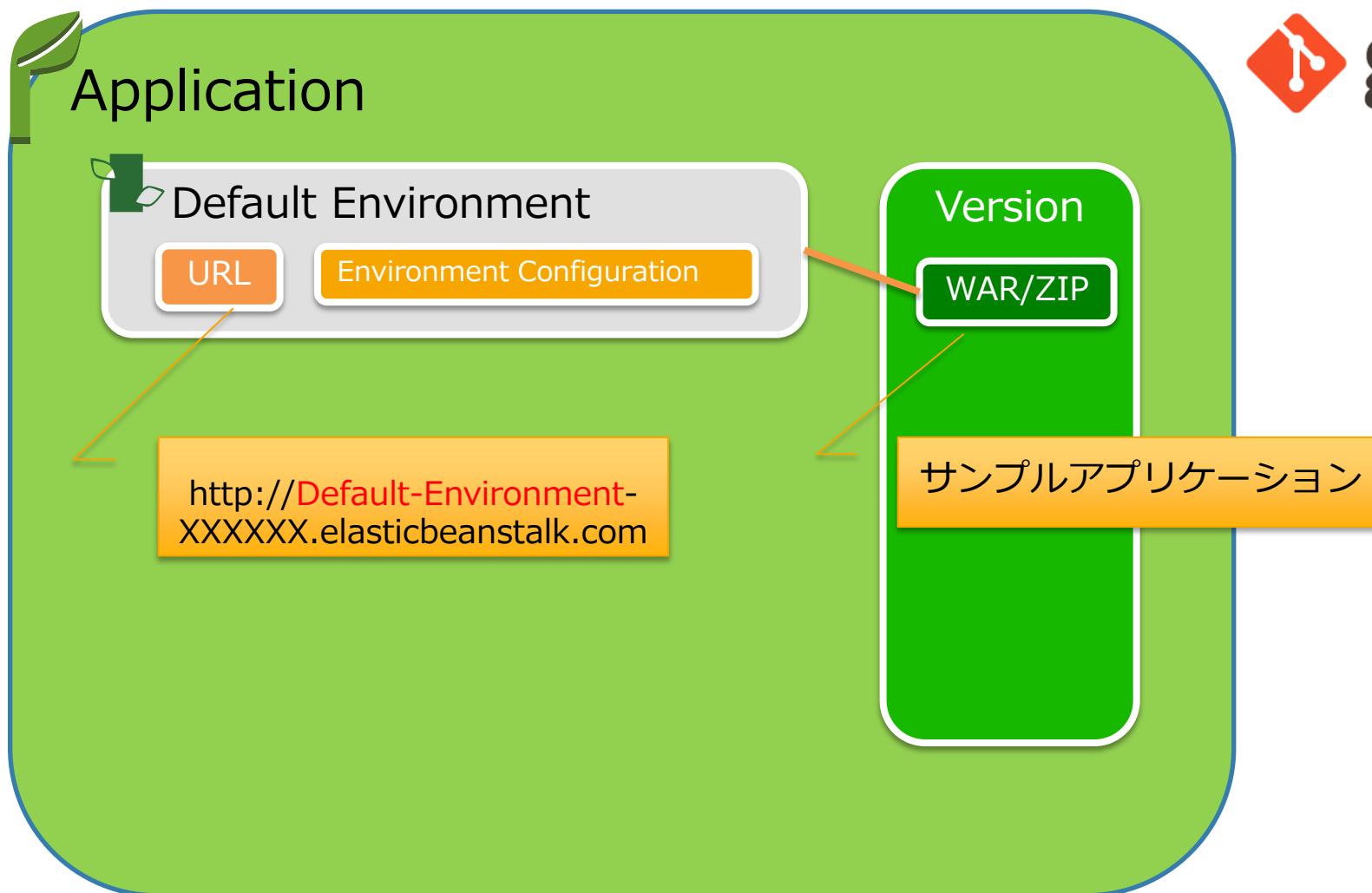
**What's Next?**

- [AWS Elastic Beanstalk overview](#)
- [Deploying AWS Elastic Beanstalk Applications in PHP Using Eb and Git](#)
- [Using Amazon RDS with PHP](#)
- [Customizing the Software on EC2 Instances](#)
- [Customizing Environment Resources](#)

**AWS SDK for PHP**

- [AWS SDK for PHP home](#)
- [PHP developer center](#)
- [AWS SDK for PHP on GitHub](#)

# ここまでに出来上がった構成



# マネージメントコンソールから コードをデプロイ

WARファイルやZIPで固めたプロジェクトなど

The screenshot shows the AWS Elastic Beanstalk Management Console for the application "My First Elastic Beanstalk Application". On the left, the "Deploy a Different Version" button is circled in red. A modal window titled "Deploy a Different Version" is open on the right, containing fields for "Version Label" (set to "SecondVersion") and "Description" (optional). It also includes a section for "Upload Existing Application" with a "Select File" button. Three yellow arrows point from the Japanese text labels on the right to specific elements in the modal: one arrow points to the "Version Label" field, another to the "Description" field, and a third to the "Select File" button.

My First Elastic Beanstalk Application

Elastic Beanstalk Application Details

Overview Events Versions

Application Description: This is the sample application provided by Amazon.

Created on: 2013-01-10 15:32 GMT+0900

Edit Application Description | Delete This Application

My First Elastic Beanstalk Application Environments

Default-Environment Successfully running version Sample Application.

Environment Details

Overview Logs Monitoring Events

URL: http://Default-Environment-mgghc65dfg.elasticbeanstalk.com

Running Version: Sample Application

Container Type: 64bit Amazon Linux running PHP 5.4

Changed on: 2013-01-10 15:38 GMT+0900

Deploy a Different Version | Edit Configuration

Deploy a Different Version

Select a different version to deploy to this environment, or upload a new version and deploy it to this environment.

Environment: Default-Environment

Deployment

Deploy an existing version  
Sample Application

Upload and deploy a new version

Version Label: SecondVersion

Description: (optional, 200 char maximum)

Upload Existing Application: (e.g. WAR file)

ファイルを選択 選択されていません

Check バージョンに付ける名前

アップロードするファイルを選択

Cancel Deploy Version

# Gitでコードをデプロイ ～準備編～

## 📦 作業環境の用意（既にあればスキップ）

- EC2インスタンスを起動（t1.microで十分）
- ログインしてgitをインストール

```
$ sudo yum -y install git
```

## 📦 ElasticBeanstalkのCLIツールをダウンロード

- 下記URLから最新版のURLを取得
  - <http://aws.amazon.com/code/6752709412171743>
- ダウンロードと解凍（下記例ではVersion 2.3）

```
$ wget https://s3.amazonaws.com/elasticbeanstalk/cli/AWS-ElasticBeanstalk-CLI-2.3.zip
$ unzip AWS-ElasticBeanstalk-CLI-2.3.zip
```

# Gitでコードをデプロイ ～プロジェクトセットアップ編～

## 📦 プロジェクトを作成して初期化

```
$ mkdir helloworld  
$ cd helloworld  
$ git init
```

## 📦 AWS Dev Toolを使ってデプロイに関するコンフィグ

- スクリプトを走らせてgit の拡張コマンドをインストール

```
$ ~/AWS-ElasticBeanstalk-CLI-2.3/AWSDevTools/Linux/AWSDevTools-RepositorySetup.sh
```

- aws.configコマンドでデプロイに関するコンフィグを設定

```
$ git aws.config  
AWS Access Key: AKIXXXXXXXXXXXXXXXXXXXX  
AWS Secret Key: zGt9B9XXXXXXXXXXXXXXXXXXXX  
AWS Region [default to us-east-1]: ap-northeast-1  
AWS Elastic Beanstalk Application: My First Elastic Beanstalk Application  
AWS Elastic Beanstalk Environment: Default-Environment
```

# Gitでコードをデプロイ ～実施編～

## コードを開発、ローカルでテスト

```
$ cat > index.php
<html><head><title>PHP Test</title></head>
<body><?php echo '<h1>Hello, World!</h1>'; ?></body></html>
Ctrl+d
```

## Git でローカルレポジトリに変更をコミット

```
$ git add index.php
$ git commit -m "initial commit"
```

## Beanstalkの環境にコードをデプロイ

```
$ git aws.push
Counting objects: 3, done.
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 306 bytes, done.
Total 3 (delta 0), reused 0 (delta 0)
remote:
To https://AKIA....
 * [new branch]    HEAD -> master
```

# 更新されたコードのデプロイを確認

My First Elastic Beanstalk Application

Elastic Beanstalk Application Details

Application Description: This is the sample application provided by Amazon Web Services for demonstrating AWS Elastic Beanstalk.

Created on: 2013-01-10 15:32 GMT+0900

Edit Application Description | Delete This Application

My First Elastic Beanstalk Application Environments

Default-Environment

Latest Event: Environment update is starting. (Note: Updating your environment may take several minutes.)

Environment Details

Overview Logs Monitoring Events

URL: http://Default-Environment-mgghc65dfg.elasticbeanstalk.com

Running Version: Sample Application

Container Type: 64bit Amazon Linux running PHP 5.4

Changed on: 2013-01-10 15:38 GMT+0900

Deploy a Different Version | Edit Configuration

My First Elastic Beanstalk Application

Elastic Beanstalk Application Details

Application Description: This is the sample application provided by Amazon Web Services for demonstrating AWS Elastic Beanstalk.

Created on: 2013-01-10 15:32 GMT+0900

Edit Application Description | Delete This Application

My First Elastic Beanstalk Application Environments

Default-Environment

Successfully running version git-95b720b3f06dc3a4787fba34741e91d78affeb40-1357805197470.

Environment Details

Overview Logs Monitoring Events

URL: http://Default-Environment-mgghc65dfg.elasticbeanstalk.com

Running Version: git-95b720b3f06dc3a4787fba34741e91d78affeb40-1357805197470

Container Type: 64bit Amazon Linux running PHP 5.4

Changed on: 2013-01-10 17:08 GMT+0900

Deploy a Different Version | Edit Configuration

更新が完了するとステータスが再びグリーンに  
Running Versionも更新される

# 各バージョンの一覧を確認

バージョンタブを選択

任意のバージョンを選択してロールバックすることも可能

My First Elastic Beanstalk Application

Elastic Beanstalk Application Details

Versions (selected)

Upload New Version Deploy Version Delete Version

Viewing: All

Version Label	Description	Running on	Created on	Location
git-95b720b3f06dc3a4787fb	3rd	Default-Environment	2013-01-10 17:06 GMT+0900	git-95b720b3f06dc3a4787fba34741e91d78affeb40-1357805197470.zip
git-e41e4d543dff4a89c4403	2nd	-	2013-01-10 16:08 GMT+0900	git-e41e4d543dff4a89c440345847b248107fc13aad-1357801711523.zip
git-3d5f316a158602fd99714	initial	-	2013-01-10 16:05 GMT+0900	git-3d5f316a158602fd997146f33e2b1d5b785d4b70-1357801532830.zip
Sample Application	This is the sample application provided by Amazon V	-	2013-01-10 15:32 GMT+0900	Generic Sample Application

My First Elastic Beanstalk Application Environments

Default-Environment  
Successfully running version git-95b720b3f06dc3a4787fba34741e91d78affeb40-1357805197470

Environment Details

Overview Logs Monitoring Events

URL: <http://Default-Environment-mqahc650>

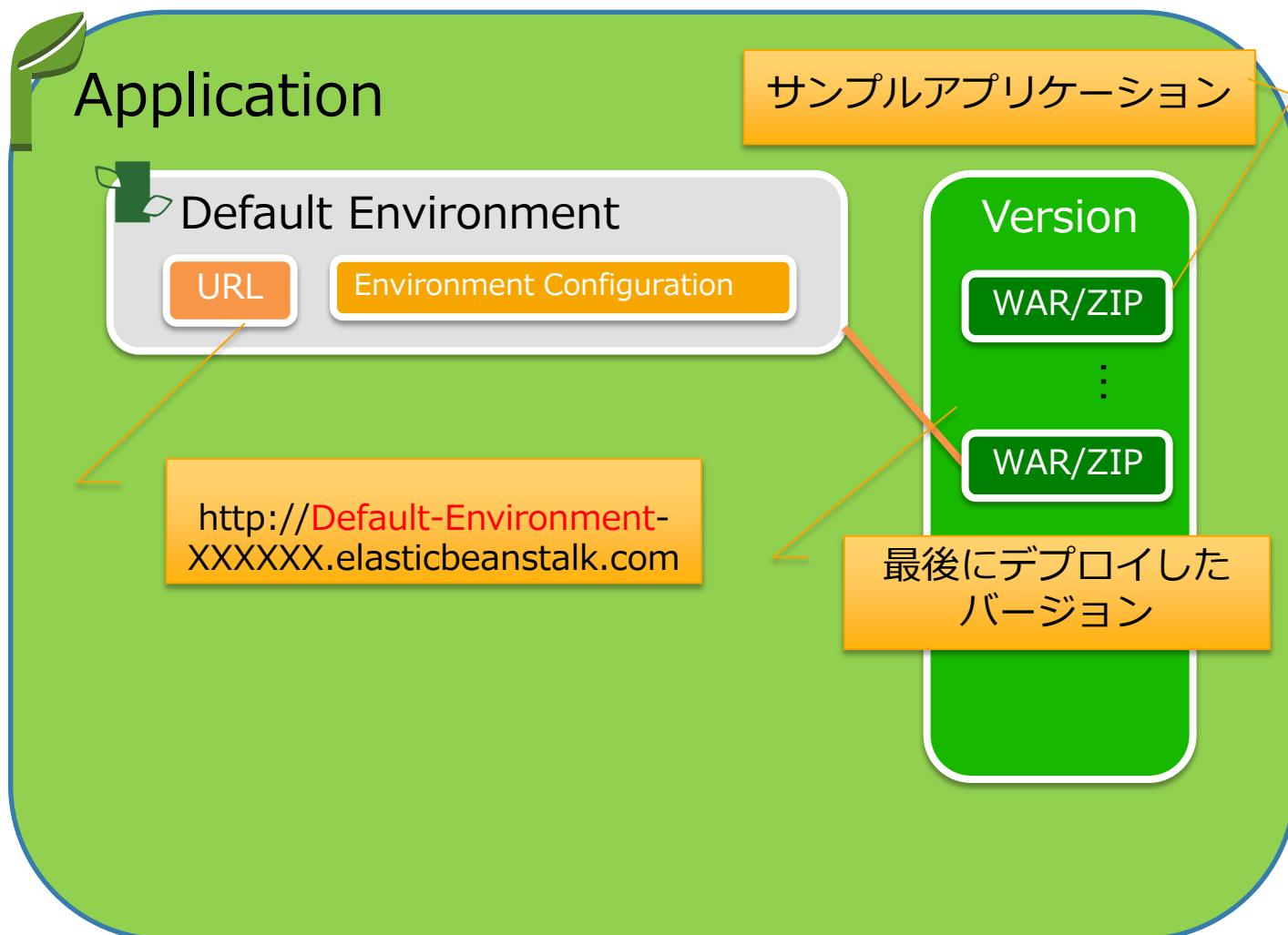
Running Version: git-95b720b3f06dc3a4787fba34741e91d78affeb40-1357805197470

Container Type: 64bit Amazon Linux running PHP 5.4

Changed on: 2013-01-10 17:08 GMT+0900

Deploy a Different Version | Edit Configuration

# ここまでに出来上がった構成



# ステージング環境の追加

The screenshot shows the AWS Elastic Beanstalk console for the application "My First Elastic Beanstalk Application". The "Launch New Environment" button in the top right of the main interface is circled in red.

**Launch New Environment Dialog Fields:**

- Environment Name:** Stating-Environment (with a yellow arrow pointing to it)
- Environment URL:** http://Staging-Environment-mgghc65dfg.elasticbeanstalk.com (with a yellow arrow pointing to it)
- Description:** (optional, 200 char maximum) (empty field)
- Version:**
  - Select an existing application version  
Sample Application
  - Upload and use a new application version  
[File Selection] 選択されていません(with a yellow arrow pointing to it)
- Container Type:** 64bit Amazon Linux running PHP 5.4
- Create an RDS DB Instance with this environment** checkbox (unchecked)

Large yellow arrows point from the right side of the page towards the "Environment Name", "Environment URL", and "Version" sections of the dialog.

**Text Labels:**

- 環境名 (Environment Name)
- 環境に割り当てるURL (要Global Unique) (Environment URL)
- デプロイするバージョンを指定 (ここでは再びサンプルを選択) (Version selection)

# 新環境の初期設定



# 追加された環境の確認

My First Elastic Beanstalk Application

Upload New Version Launch New Environment Create New Application

Elastic Beanstalk Application Details

Overview Events Versions

**Application Description:** This is the sample application provided by Amazon Web Services for demonstrating AWS Elastic Beanstalk.

**Created on:** 2013-01-10 15:32 GMT+0900

Edit Application Description | Delete This Application

My First Elastic Beanstalk Application Environments

Refresh

**Staging-Environment** Successfully running version Sample Application.

View Running Version Actions

Environment Details

Overview Logs Monitoring Events

**URL:** <http://Staging-Environment-mgg.elasticbeanstalk.com>

**Running Version:** Sample Application

**Container Type:** 64bit Amazon Linux running PHP 5.4

**Changed on:** 2013-01-10 17:33 GMT+0900

Deploy a Different Version | Edit Configuration

**Default-Environment** Successfully running version git-95b720b3f06dc3a4787fba34741e91d78affeb40-1357805197470.

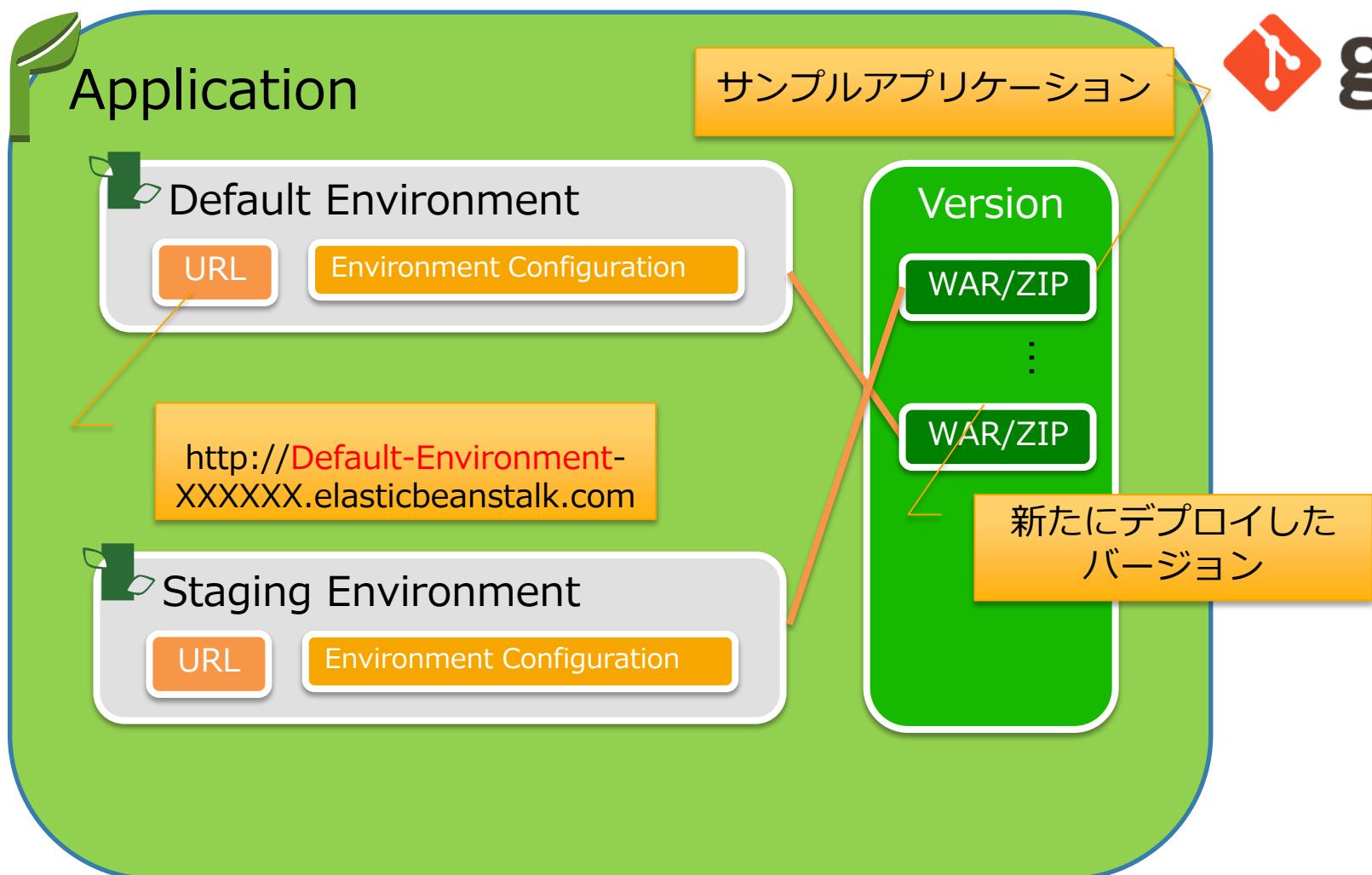
View Running Version Actions

► Environment Details

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Feedback

# ここまでに出来上がった構成



# 環境のスワッピング

ステージング環境を本番環境に移行する場合など  
DNSの切り替えにより実施される

The screenshot shows the AWS Elastic Beanstalk console for the application "My First Elastic Beanstalk Application". The main interface displays two environments: "Staging-Environment" (running version Sample App) and "Default-Environment" (running version git-95b720). A context menu is open over the "Staging-Environment" row, with the "Swap Environment URL" option highlighted. A modal dialog titled "Swap Environment URL" is displayed, explaining that swapping URLs will modify Route 53 DNS configuration. It shows the "Environment Name" and "Environment URL" for the "Staging-Environment" (both labeled "入れ替え元"). Below it, another section shows the "Default-Environment" with its own "Environment Name" and "Environment URL" (both labeled "入れ替え先"). Orange arrows point from the Japanese labels "入れ替え元" and "入れ替え先" to their respective fields in the dialog.

My First Elastic Beanstalk Application

Upload New Version Launch New Environment Create New Application

Elastic Beanstalk Application Details

Overview Events Versions

Application Description: This is the sample application provided by Amazon Web Services for demonstrating AWS Elastic Beanstalk.

Created on: 2013-01-10 15:32 GMT+0900

Edit Application Description | Delete This Application

My First Elastic Beanstalk Application Environments

Staging-Environment Successfully running version Sample App

Environment Details

Overview Logs Monitoring Events

URL: http://Staging-Environment.m...  
Running Version: Sample Application  
Container Type: 64bit Amazon Linux  
Changed on: 2013-01-10 15:32  
Deploy a Different Version | Edit Configuration

Default-Environment Successfully running version git-95b720

Environment Details

View Running Version Actions

Deploy a Different Version  
Edit/Load Configuration  
Save Configuration  
**Swap Environment URL**  
Restart the App Server(s)  
Rebuild this Environment  
Terminate this Environment

View Running Version Actions

Feedback

Swap Environment URL

Swapping an environment's URL with another environment's URL allows you to deploy versions with no downtime. Learn more >

Swapping the environment URL will modify the Route 53 DNS configuration which may take a few minutes. Your application will continue to run while the changes propagate.

Environment Details

Environment Name: Staging-Environment  
Environment URL: Staging-Environment.m...elasticbeanstalk.com

Select an Environment to Swap

Environment Name: Default-Environment  
Environment URL: Default-Environment.m...dfg.elasticbeanstalk.com

Cancel Swap URL

# 環境スワップが実行されたことを確認

The screenshot shows the AWS Elastic Beanstalk console for the application "My First Elastic Beanstalk Application".

**Elastic Beanstalk Application Details:**

- Application Description:** This is the sample application provided by Amazon Web Services for demonstrating AWS Elastic Beanstalk.
- Created on:** 2013-01-10 15:32 GMT+0900
- Edit Application Description** | **Delete This Application**

**My First Elastic Beanstalk Application Environments:**

- Staging-Environment**: Successfully running version Sample Application.
  - View Running Version** | **Actions**
- Default-Environment**: Successfully running version git-95b720b3f06dc3a4787fba34741e91d78affeb40-1357805197470.
  - View Running Version** | **Actions**

**Environment Details (for Staging-Environment):**

- Overview** (selected), **Logs**, **Monitoring**, **Events**
- URL:** <http://Default-Environment-mgghc65dfg.elasticbeanstalk.com> (This URL is circled in red.)
- Running Version:** Sample Application
- Container Type:** 64bit Amazon Linux running PHP 5.4
- Changed on:** 2013-01-10 17:42 GMT+0900
- Deploy a Different Version** | **Edit Configuration**

**Environment Details (for Default-Environment):**

- View Running Version** | **Actions**

**Feedback**

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今までDefault-EnvironmentについていたURLがStaging-Environmentに

# ここまでに出来上がった構成

