

EBRU CUCEN

CI/CD PIPELINE WITH OCTOPUS DEPLOY

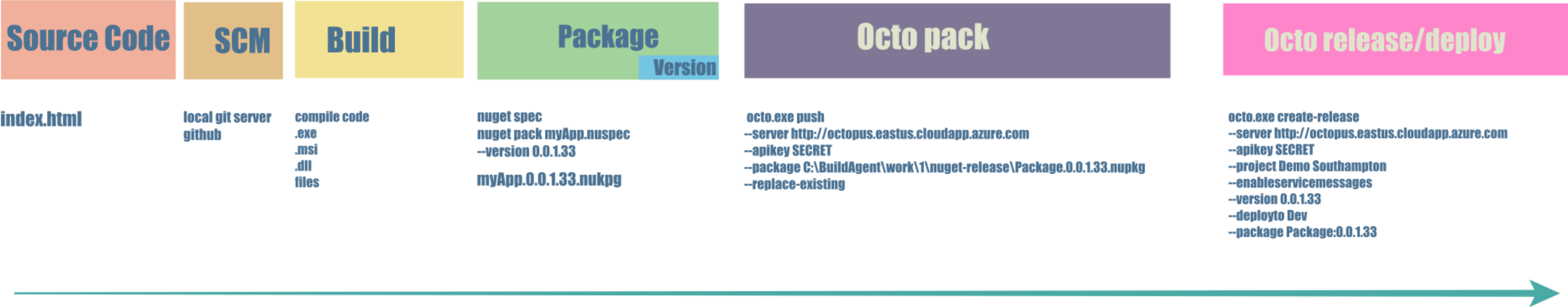
WHO AM I?

- ▶ .Net Dev turned into DevOps
- ▶ London Powershell User Group co-runner
- ▶ @ebrucucen

AGENDA

- ▶ What is CI/CD?
- ▶ Set up of TeamCity on AWS
- ▶ Set up of OctopusDeploy on Azure
- ▶ Demo
 - ▶ Configuration of TeamCity
 - ▶ Configuration of OctopusDeploy

CI/CD PIPELINE



SETTING UP OCTOPUS DEPLOY ON AZURE

- ▶ A Win VM with
 - size option
 - Public IP
 - admin login
 - Win2012 R2
 - PS V4
- ▶ A SQL DB with
 - size option
 - login

portal.azure.com/#create/octopus.octopusdeployoctopus-de

Microsoft Azure << Octopus Deploy > Create Octopus Deploy > Basics

Create Octopus Deploy

Basics

Subscription
Visual Studio Premium with MSDN

* Resource group ⓘ
☒ Create new ☐ Use existing

The value should not be empty.

* Location
West Europe

OK

1 Basics
Configure basic settings

2 Infrastructure
Configure the infrastructure re...

3 Octopus Deploy
Configure Octopus Deploy

4 Summary
Octopus Deploy

5 Buy

New

Dashboard

Resource groups

All resources

Recent

Virtual machines

Storage accounts

Subscriptions

Virtual networks

Automation Accounts

Azure Active Directory

Monitor

Security Center

More services >

OCTOPUS SERVER ON AZURE



Overview

Activity log

Access control (IAM)

Tags

SETTINGS

Quickstart

Resource costs

Deployments

Policies

Properties

Locks

Automation script

MONITORING

+

Add

≡

Columns

🗑

Delete resource group

↺

Refresh

➡

Move

🏷

Assign Tags

Subscription [\(change\)](#)

Deployments
1 Succeeded

V

Subscription ID

46bcb9e2-92d5-4a5c-9c58-4b5deb2b30d3

Filter by name...










All types

▼

All locations

▼

No grouping

9 items			
<input type="checkbox"/>	NAME ↑↓	TYPE ↑↓	LOCATION ↑↓
<input type="checkbox"/>	 octopus01jinyfs3qt4fe	Storage account	East US
<input type="checkbox"/>	 octopus02jinyfs3qt4fe	Storage account	East US
<input type="checkbox"/>	 octopusjinyfs3qt4fe	SQL server	East US
<input type="checkbox"/>	 OctopusDeploy	SQL database	East US
<input type="checkbox"/>	 octopus-nic	Network interface	East US
<input type="checkbox"/>	 octopus-nsg	Network security group	East US
<input type="checkbox"/>	 octopus-publicip	Public IP address	East US
<input type="checkbox"/>	 octopus-vm	Virtual machine	East US
<input type="checkbox"/>	 octopus-vnet	Virtual network	East US

SETTING UP TEAMCITY ON AWS

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 no file selected

☒ Specify an Amazon S3 template URL

https://s3.amazonaws.com/teamcity.jetbrains.com/teamcity-server.yaml

[View/Edit template in Designer](#)

Cancel

Next

TEXT

TEAMCITY SET UP

Centos EC2

aws

Services

Resource Groups

CloudFormation

Stacks

Create Stack

Actions

Design template

Filter: Active

By Stack Name

Showing 1 stack

	Stack Name	Created Time	Status	Description
<input checked="" type="checkbox"/>	TeamCity	2018-01-22 20:17:54 UTC+0000	CREATE_COMPLETE	This template deploys a CoreOS EC2 instance with the official TeamCity server of the spe...

Overview

Outputs

Resources

Events

Template

Parameters

Tags

Stack Policy

Change Sets

Rollback Triggers

Logical ID	Physical ID	Type	Status	Status Reason
DefaultPrivateRoute1	TeamC-Defau-1FJCBRENQ6QB7	AWS::EC2::Route	CREATE_COMPLETE	
DefaultPrivateRoute2	TeamC-Defau-1LHPKW744YFE8	AWS::EC2::Route	CREATE_COMPLETE	
DefaultPublicRoute	TeamC-Defau-1O4F8JQ3AE5Y5	AWS::EC2::Route	CREATE_COMPLETE	
EC2Instance	i-087e5f101d9927ac1	AWS::EC2::Instance	CREATE_COMPLETE	
EC2SecurityGroup	sg-91bfb2e5	AWS::EC2::SecurityGroup	CREATE_COMPLETE	
EIP	35.169.254.211	AWS::EC2::EIP	CREATE_COMPLETE	
InternetGateway	igw-6472771d	AWS::EC2::InternetGateway	CREATE_COMPLETE	
InternetGatewayAttachment	TeamC-Inter-TFZY29GRYQJ0	AWS::EC2::VPCGatewayAttachment	CREATE_COMPLETE	
PrivateRouteTable1	rtb-d3bff6ae	AWS::EC2::RouteTable	CREATE_COMPLETE	
PrivateRouteTable2	rtb-e3b8f19e	AWS::EC2::RouteTable	CREATE_COMPLETE	
PrivateSubnet1	subnet-0394f82c	AWS::EC2::Subnet	CREATE_COMPLETE	
PrivateSubnet1RouteTable...	rtbassoc-f5c56989	AWS::EC2::SubnetRouteTableAsso...	CREATE_COMPLETE	
PrivateSubnet2	subnet-0ffde884	AWS::EC2::Subnet	CREATE_COMPLETE	

TEAMCITY CONFIGURATION GOAL

TC

Projects

Changes

Agents 2

Build Queue 0

Admin

Administration

Administration /

<Root project> /

Sample Static Page

Run

...

Actions

Build Configuration Home

Build

General Settings

Version Control Settings 1

Build Steps 3

Triggers 1

Failure Conditions

Build Features

Dependencies

Parameters 4

Agent Requirements

Last edited one hour ago by Admin (view history)

Build Steps

In this section you can configure the sequence of build steps to be executed. Each build step is represented by a build runner and provides integration with a specific build or test tool.

Add build step

Reorder build steps

Auto-detect build steps

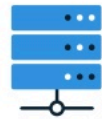
Build Step	Parameters Description		
1. Package	NuGet Pack Pack: Package.nuspec Version: %build.number% Execute: If all previous steps finished successfully	Edit	
2. OctopusDeploy: Create and Push Packages	Execute: If all previous steps finished successfully	Edit	
3. OctopusDeploy: Create release	Execute: If all previous steps finished successfully	Edit	

OCTOPUS DEPLOY END GOAL



1. Install and set up OCTOPUS SERVER

- ✓ Create home directory
- ✓ Configure service account
- ✓ Specify SQL Server details
- ✓ Set up web portal
- ✓ Select authentication mode
- ✓ Create Octopus admin



2. Configure INFRASTRUCTURE

- ✎ **Create environments**
Environments help you organise targets into groups. e.g., Dev, Test and Production.
- ✎ **Add deployment target**
Targets are the servers where your applications will be deployed.
- OR**
- ✎ **Add an account**
Accounts can be associated with deployment targets and include Azure subscriptions, SSH keys, and usernames and passwords.

Learn more about [environments](#), [targets](#) and [accounts](#).



3. Application PACKAGING

- i **Learn about packaging and versioning**
Package and version your applications so they can be deployed.
- ✎ **Upload package**
Push packages to the built-in repository manually or integrate with your existing build tool.
- OR**
- ✎ **Add external feed**
Octopus can integrate with external package repositories like TeamCity and VSTS.

Learn more about [versioning](#), [packaging](#) and [external feeds](#).



4. Create a PROJECT

- ✎ **Create a project**
Octopus projects specify the steps and configuration variables required to deploy your application.
- ✎ **Define its process**
A deployment process specifies the steps to deploy an application which allows you to deploy new versions consistently every time.

Learn more about [projects](#) and [deployment processes](#).



5. You're ready to DEPLOY

- ✎ **Create a release**
Releases contain all project and package details so it can be deployed safely over and over.
- Creating a release can be done once steps 1-4 are complete.
- ✎ **Deploy a release**
Deploy your first release to complete your journey into deployment automation.

Learn more about [creating and deploying releases](#).

OCTOPUS DEPLOY END GOAL



Demo
Southampton

CREATE RELEASE

- Overview
- Process
- Variables
- Triggers

Release 0.0.1.33

✓ Deploy Demo Southampton release 0.0.1.33 to Dev

EDIT STATE

TASK SUMMARY

TASK LOG

Expand Custom Log level Info Log tail Last 20 RAW DOWNLOAD

This task started 33 minutes ago and ran for 25 seconds

Deploy Demo Southampton release 0.0.1.33 to Dev		Ran for 25 seconds	
Step 2: Create Azure Resources - WA is disabled, and will not be executed The deployment completed successfully.	Info	January 23rd 2018 17:56:58	
	Info	January 23rd 2018 17:57:23	
+ Step 1: Create Azure Resources - RG		Ran for 5 seconds	



Congratulations!

That was your first successful deployment for this project. We hope everything went smoothly!
Celebrate this moment by tweeting about it.

Happy deployments!
- The team at Octopus

TWEET NOW

TEXT

DEMO

REFERENCE

- ▶ SourceCode:
<https://github.com/ebrucucen/html-docs-hello-world>
- ▶ Install TC on AWS:
<https://www.jetbrains.com/teamcity/download/#section=aws>
- ▶ Nuspec:
<https://docs.microsoft.com/en-us/nuget/schema/nuspec>
- ▶ Nuget Cli:
<https://docs.microsoft.com/en-us/nuget/tools/cli-ref-pack>
- ▶ Octopus Supported Packages:
<https://octopus.com/docs/packaging-applications/supported-packages>
- ▶ Octo.exe:
<https://octopus.com/docs/api-and-integration/octo.exe-command-line>
- ▶ WebApps:
<https://docs.microsoft.com/en-us/azure/app-service/app-service-web-get-started-html>
- ▶ AzureSPN:
<https://gist.githubusercontent.com/ebrucucen/a1ff96f726899cbf1ee9769b5bd98cdc/raw/92d5cf086965c14c8e8afa7cb6ca524e61a15e1f/New-AzureSPN.ps1>

TEXT

THANK YOU!

► Questions?