



Get started with Serverless Jenkins X on AWS EKS

Stockholm Jenkins Meetup - 16.04.2020

House rules

- Ask questions at any point during the session in the chat
- Keep your microphone muted during the presentation
- Use the chat to ask questions or make comments and the reactions in the participants view



raise hand



yes



no



go slower



go faster



more

Agenda

- Introduction
- Get started with Serverless Jenkins on AWS EKS
(live-demo)
- Break into smaller groups and discuss
- Remaining Q&A and conclusions



Alex Chirișescu

Senior DevOps Consultant at Eficode Pragma



<https://twitter.com/alexchiri>



<https://www.linkedin.com/in/alexchiri/>



<https://alexchiri.com>



<https://www.pragma.com/>



Continuous Delivery and DevOps Consulting

We specialize in Continuous Delivery and aim to change the world of software development by sharing our knowledge and building strong communities

Agenda

- Introduction
- Get started with Serverless Jenkins on AWS EKS
(live-demo)
- Break into smaller groups and discuss
- Remaining Q&A and conclusions

Start with a question

How familiar are you with Kubernetes?

What is Jenkins X?

Jenkins X provides pipeline automation, built-in GitOps, and preview environments to help teams collaborate and accelerate their software delivery at any scale.

Not a simple answer:

- a [CLI](#)
- a collection of [community tools](#)
- a [way](#) of working

A (partial) walkthrough

In several steps:

- 1. Create an EKS cluster with the `jx` CLI - prepared in advance
- 2. Install Jenkins X on the newly created cluster - prepared in advance
- 3. Deploy a simple application on the cluster - 🎉 **LIVE DEMO** 🎉
- 4. Implement a small change in the application - 🎉 **LIVE DEMO** 🎉

Requirements

- A free GitHub organization with 2 free users (one will approve PRs and the other is a bot user used by the pipelines) **OR** just 2 free users (one will approve PRs and the other is a bot user used by the pipelines)
- An AWS account to run the EKS cluster in.
- Some tools installed -
<https://gist.github.com/alexchiri/67d3a267e8dc05cdfdb34ae1e926001c>

Requirements



jenkinsx-play

Jenkins X play

Just an organization to use to play with Jenkins X

 **Repositories**

 Packages

 People **2**

 Teams

 Projects

 Settings

This organization has no repositories.

[Create a new repository](#)

alexchiri



alexchiri-play



Invite your teammates...

[Invite](#)

2 >

Environment

- I run all the commands from this walkthrough in a Debian VM running in WSL2
- I created a shell script to install the tools I use at specific versions and you can use it to bootstrap your Debian/Ubuntu environment:

<https://gist.github.com/alexchiri/67d3a267e8dc05cdfdb34ae1e926001c>

Create an EKS cluster with the jx CLI

- Make sure to run `aws configure` before creating the cluster and configure the authentication with your AWS account
- I created an EKS cluster called `jenkins-x-eks` with 2 `t3a.medium` nodes (max 4) in `us-east-1`:
`jx create cluster eks --cluster-name='jenkins-x-eks' --skip-installation=true --node-type='t3a.medium' --nodes-min=2 --nodes-max=4 --region='us-east-1' --zones='us-east-1a,us-east-1b'` - takes about 20 mins

Install Jenkins X on the newly created cluster

- Clone the jenkins-x-boot-config repo: `git clone https://github.com/jenkins-x/jenkins-x-boot-config.git`
`environment-jenkins-x-eks-dev`
- Edit `jx-requirements.yaml` and change provider to `eks`, set `versionStream.ref` to v1.0.403` and if you want, set environmentGitPublic to true (the rest stays the same)`
- Run `jx boot` from the `environment-jenkins-x-eks-dev` folder

Deploy a simple application on the cluster

 **LIVE DEMO** 

[more details](#)

Let's recap!



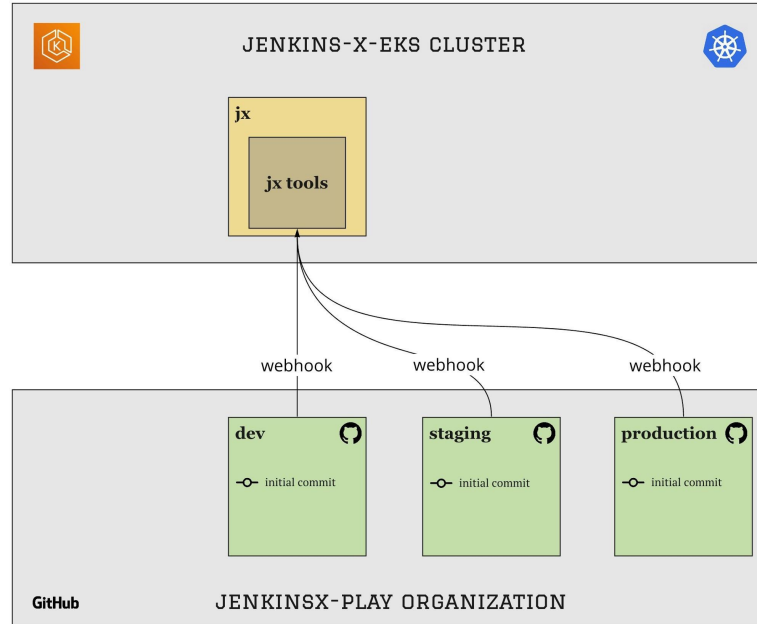
JENKINS-X-EKS CLUSTER



```
We have created a cluster in AWS EKS using the `jx  
create cluster` command.
```

[more details](#)

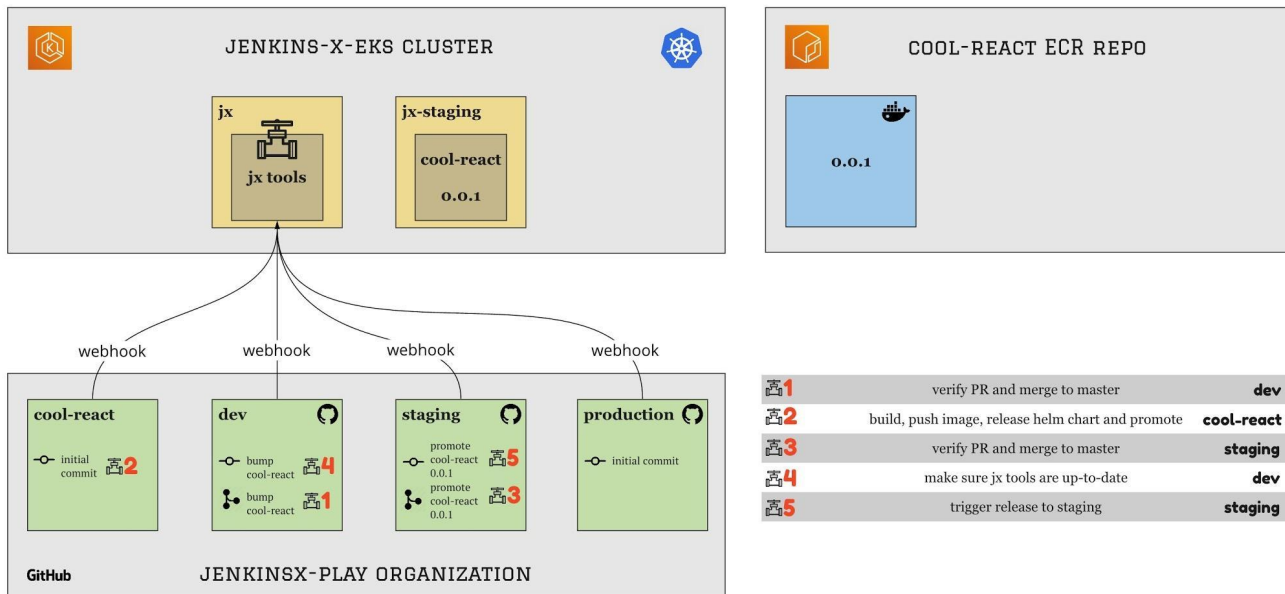
Let's recap!



```
We have installed Jenkins X in this cluster using the `jx  
boot` command
```

[more details](#)

Let's recap!



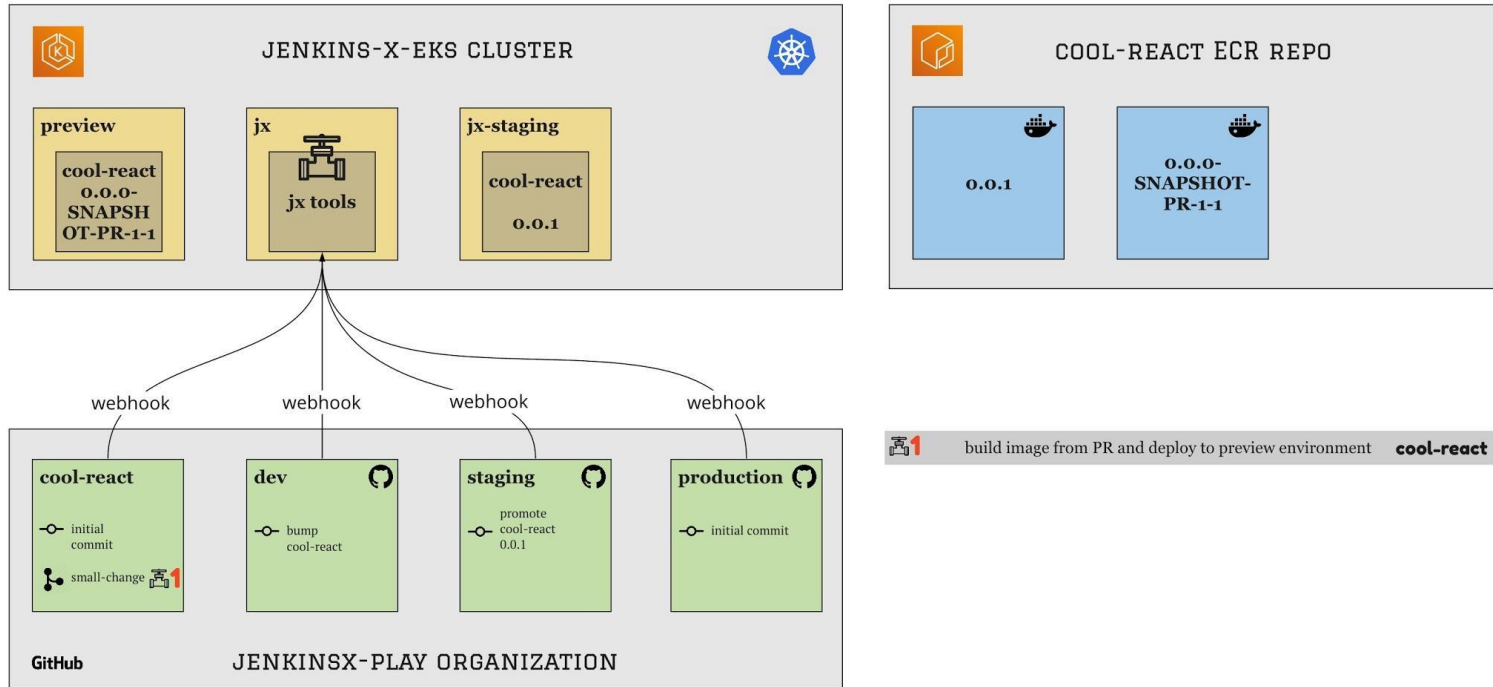
We created a new application using a template provided by `jx` and a first version of it was already deployed in the `staging` environment

Implement a small change in the application

 **LIVE DEMO** 

[more details](#)

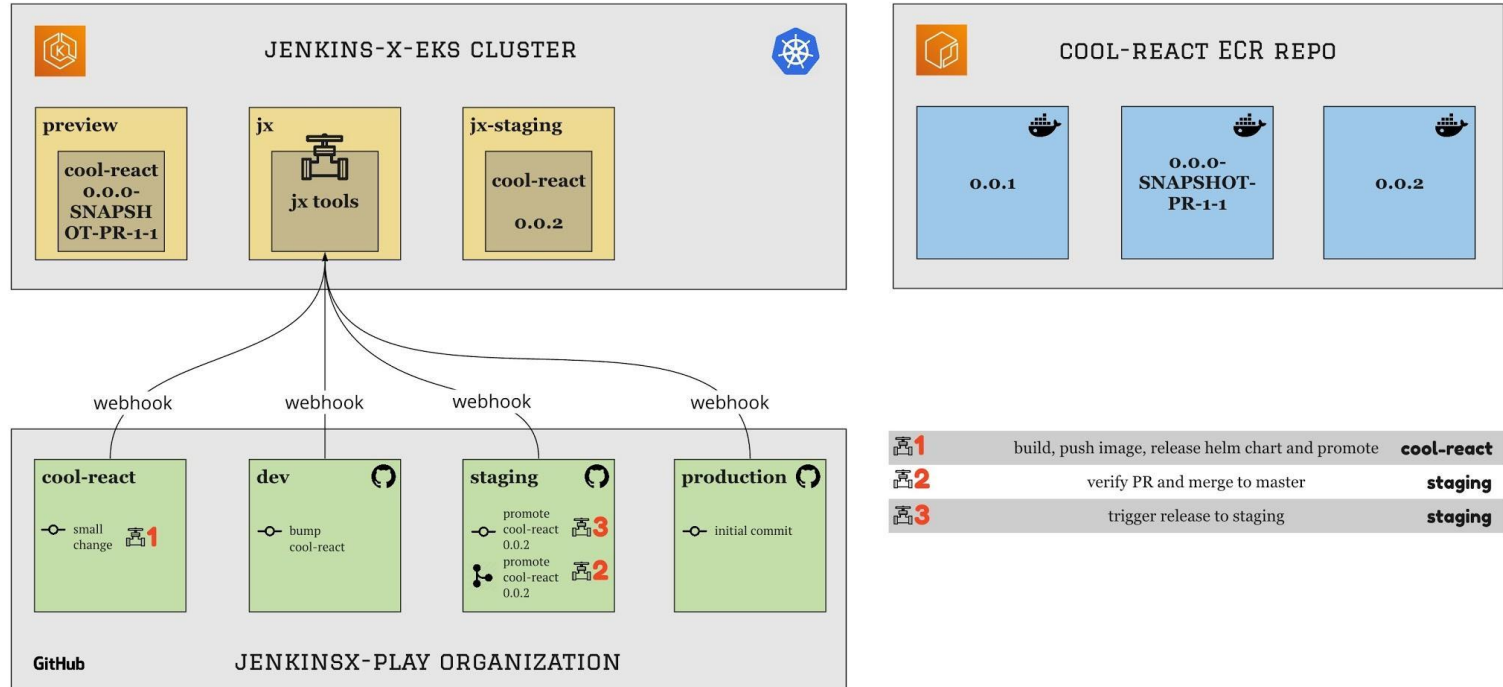
Implement a small change in the application



Made a small change and previewed it

[more details](#)

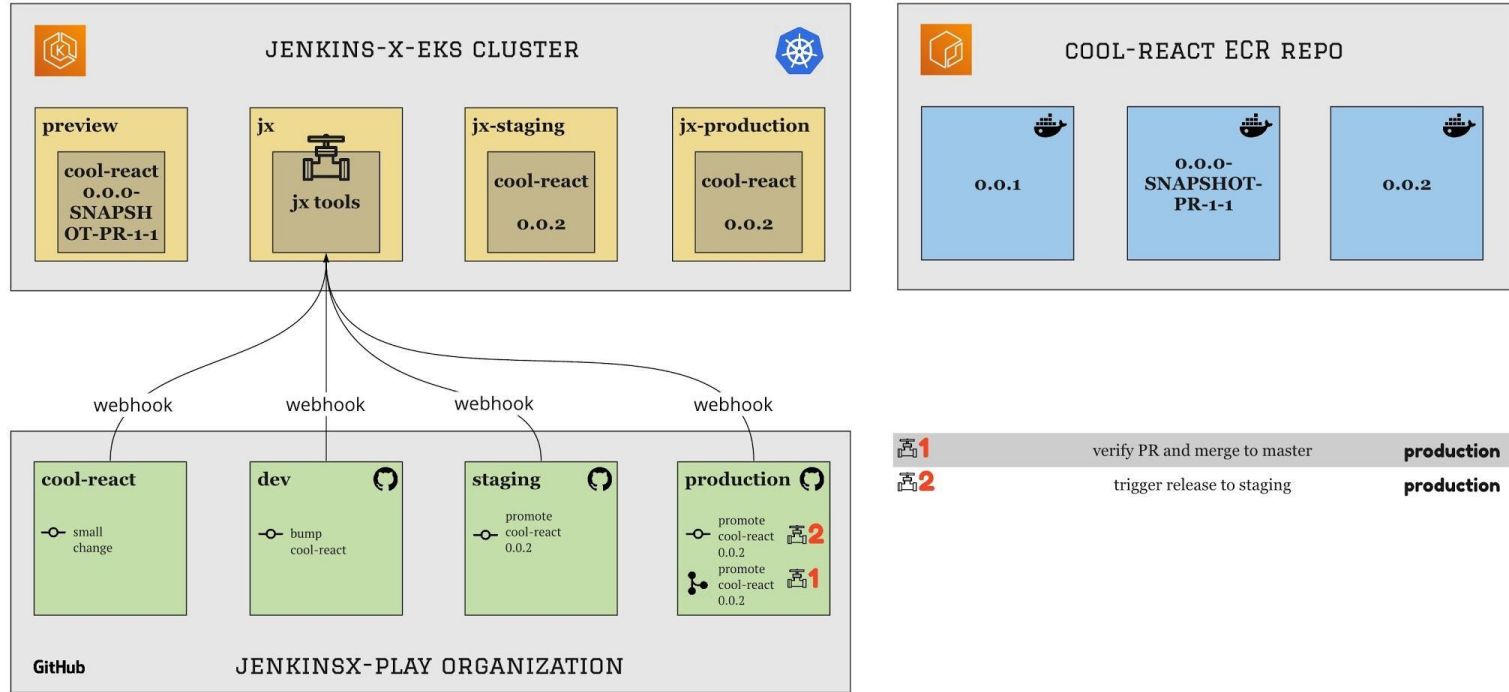
Implement a small change in the application



Approved the change

[more details](#)

Implement a small change in the application



Promoted it to production

[more details](#)

Agenda

- Introduction
- Get started with Serverless Jenkins on AWS EKS
(live-demo)
- Break into smaller groups and discuss
- Remaining Q&A and conclusions

Let's discuss!

- Would you use/Are you using Jenkins X in your projects?
If yes, why? If not, why?
- I will create several breakout rooms and randomly distribute us
- Take 15 mins to discuss the proposed topic
- Only one person speaks at a time, turn on camera so everyone can see you and raise your hand to indicate you would like to speak
- Choose one person in each group to bring back the conclusions to the larger group
- Use the “Ask for help” button to get my attention if needed

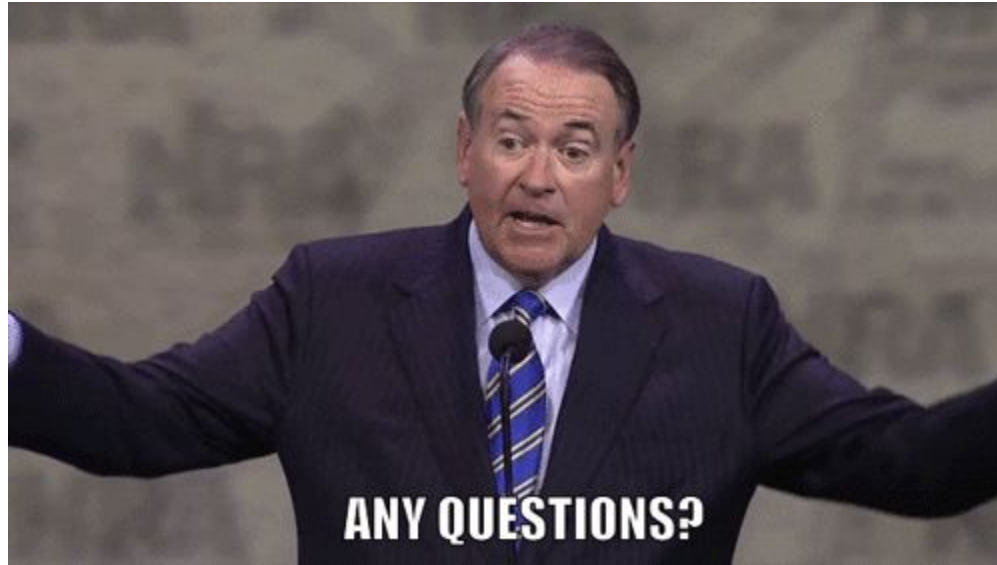
Agenda

- Introduction
- Get started with Serverless Jenkins on AWS EKS
(live-demo)
- Break into smaller groups and discuss
- Remaining Q&A and conclusions

Conclusions

- Would you use/Are you using Jenkins X in your projects?
If yes, why? If not, why?

Questions?



Thanks for joining!

