PMI's Road to Building a Centralized, Enterprise Jenkins service With CloudBees CI

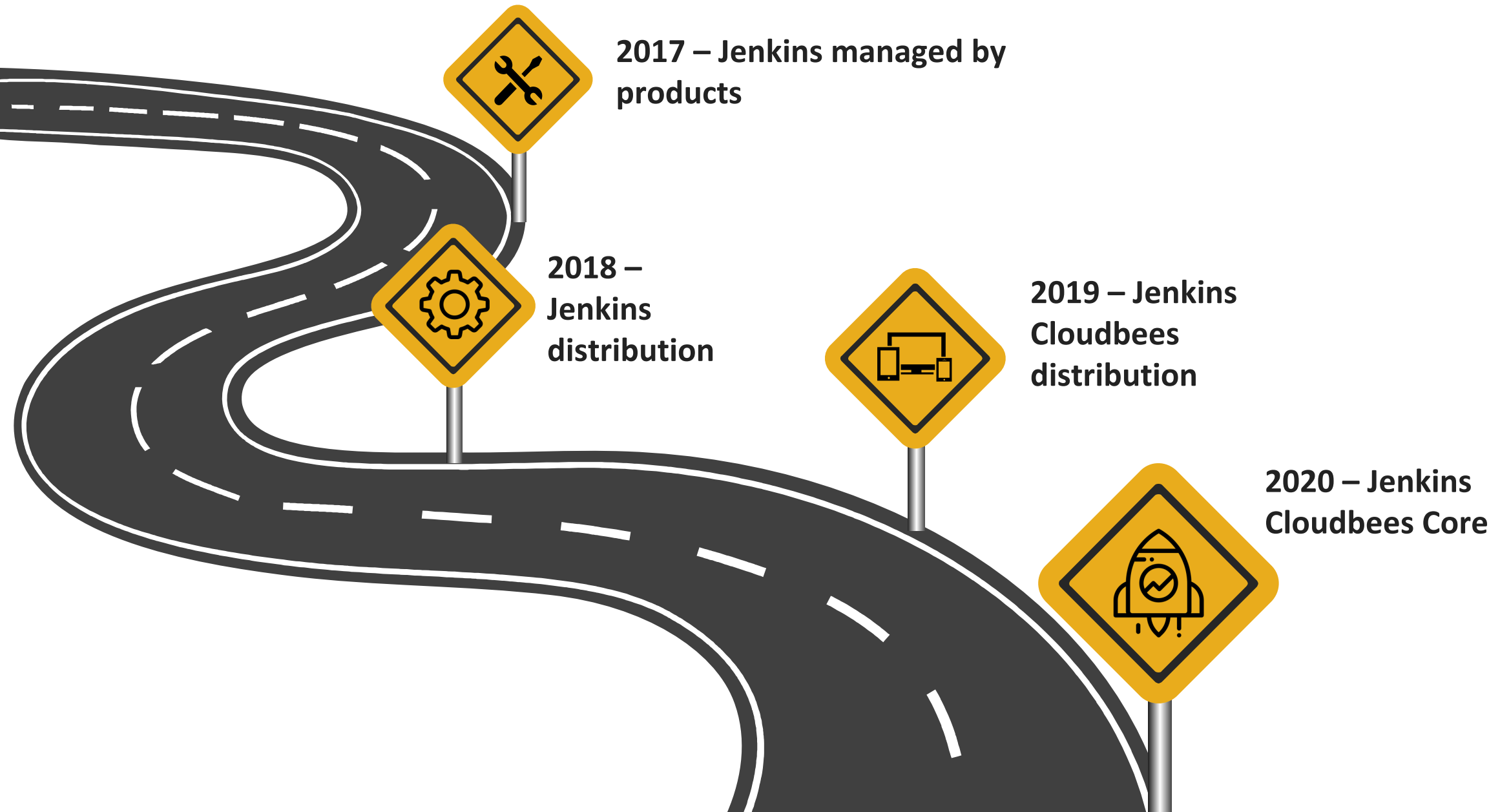*Piotr Musial – IT Manager DevOps*

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Agenda

- Introduction – what we do as an IT at PMI

- Evolution of CI tools in IT

  Jenkins managed by product teams

  Jenkins as a global CI tool – why not! 👍

- Q&A

What we do as an IT at PMI

- We are running the largest transformation in the history of our company

- From a traditional tobacco producer, we are transforming into a technology company, operating on the basis of complex scientific research, technology development and innovation.

- We're building PMI's future on smoke-free products, that are a much better choice than cigarette smoking.

- Our IT department in Krakow is a combination of technical mindset and skills, latest technologies, and customer - centricity.

- We are modifying our entire business in the scope of global operations, ranging from Artificial Intelligence, Big Data to Platform/Software Engineering and Cloud Operations

- Global EQUAL-SALARY Certification in 2019.

Jenkins – Roadmap

2017 – Jenkins managed by products

2018 – Jenkins distribution

2019 – Jenkins Cloudbees distribution

2020 – Jenkins Cloudbees Core

Jenkins managed by product teams

General information

– Classic Jenkins distribution
– Managed by the platforms

Challenges

– Plugins from untrusted source ☺
– Hard to troubleshoot issues related to products
– Lack of control of the environments
– Lack of governance

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Jenkins. Global installation

General information

- Classic Jenkins distribution
- Hosted on PMI private cloud
- 4 shared slaves (SSH) – Linux only
- Managed and upgraded centrally

Advantages 👍

- we have a CI tool… ☺

Disadvantages 👎

- Missing a flexibility
- overloaded (over 20 teams using the same master and slaves)
- Private cloud <-> public cloud connectivity concerns (security)
- Update/plugin installation – impacts ALL teams
- Plugins from untrusted source ☺

Jenkins Cloudbees

General information

- CloudBees Jenkins distribution
- Hosted on public cloud
- Managed and upgraded centrally
- 4+ shared slaves always available – 50% in public cloud, 50% in private cloud (JNLP), both Windows and Linux

Advantages 👍

- One CI tool which fits to more use cases
- Validated plugins source
- Access model linked with an Atlassian Suite
- Flexibility about the building environment
- Automatic provisioning of the projects

Disadvantages 👎

- Still a bit overloaded (over 20 teams using the same master and slaves)
- Update/plugin installation – impacts ALL teams
- Lack of flexibility – all teams using the same master

Jenkins. Cloudbees CI!

General information ℹ️

- CloudBees Jenkins – hosted on EKS

- 100% in public cloud

- Automated provisioning of the projects including the default configuration (security, pipeline templates, email notification)

- Integration with global AAD

Advantages 👍

- Validated plugins source

- One click upgrade of Managed Masters

- Flexibility in the building environment

- Central Governance of the clusters

- Installation of OC managed as a code

- Trusted plugins

Disadvantages 👎

... Not yet discovered ☺

Time for Q&A

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