



GitLab



**RED HAT®**  
**ANSIBLE®**  
Tower

# Basics of Ansible Tower integration with GitLab

Ansible in DevOps

Meetup #4; Bydgoszcz 2020-02-12

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# Agenda

- About me
- Theory in nutshell
  - Presentation goals
  - CI/CD pipeline process
  - Components setup
- Demo
  - Configuration review
  - GitLab Integrations with Ansible Tower Webhook call
  - GitLab CI/CD with Ansible Tower API call
- Q&A



# About me



## Professional profile

- Now: Technical Architect in Atos
- Past: PSI, TE, Sygnity, Red Hat
- Focused on:
  - Tooling and Automation
  - Private and Public Cloud
  - Infrastructure as a Code
  - DevOps and Agile methodologies
  - In love with GNU/Linux ;)

## Private profile

- Lives in Bydgoszcz
- Married, have got son
- Interested in:
  - MeetUp like our about Ansible ;)
  - Music production, DAW
  - Guitar & Accordion Player
  - Member of "Half the Way" band
  - Likes spend time on sea side

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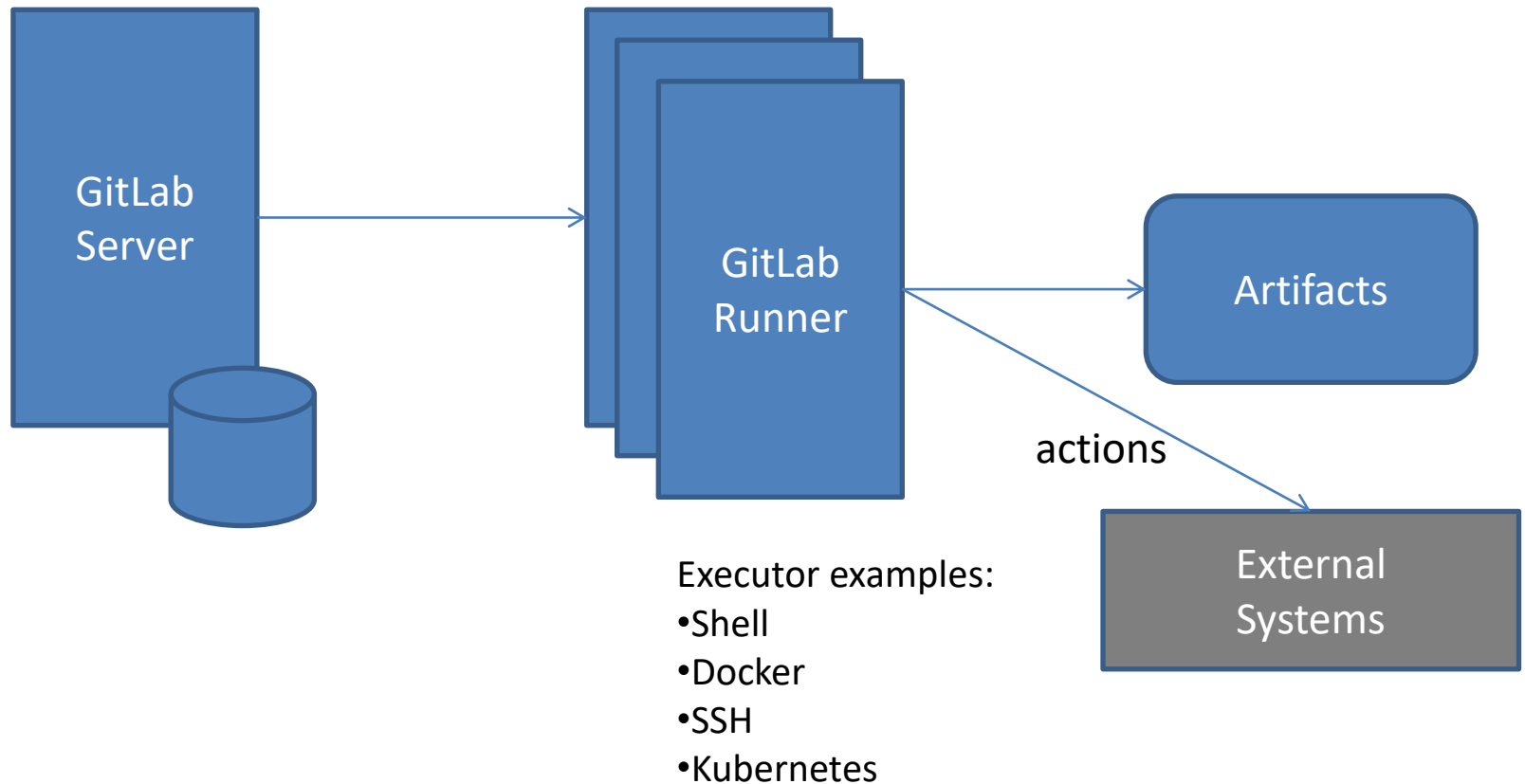


# Goals of this lecture

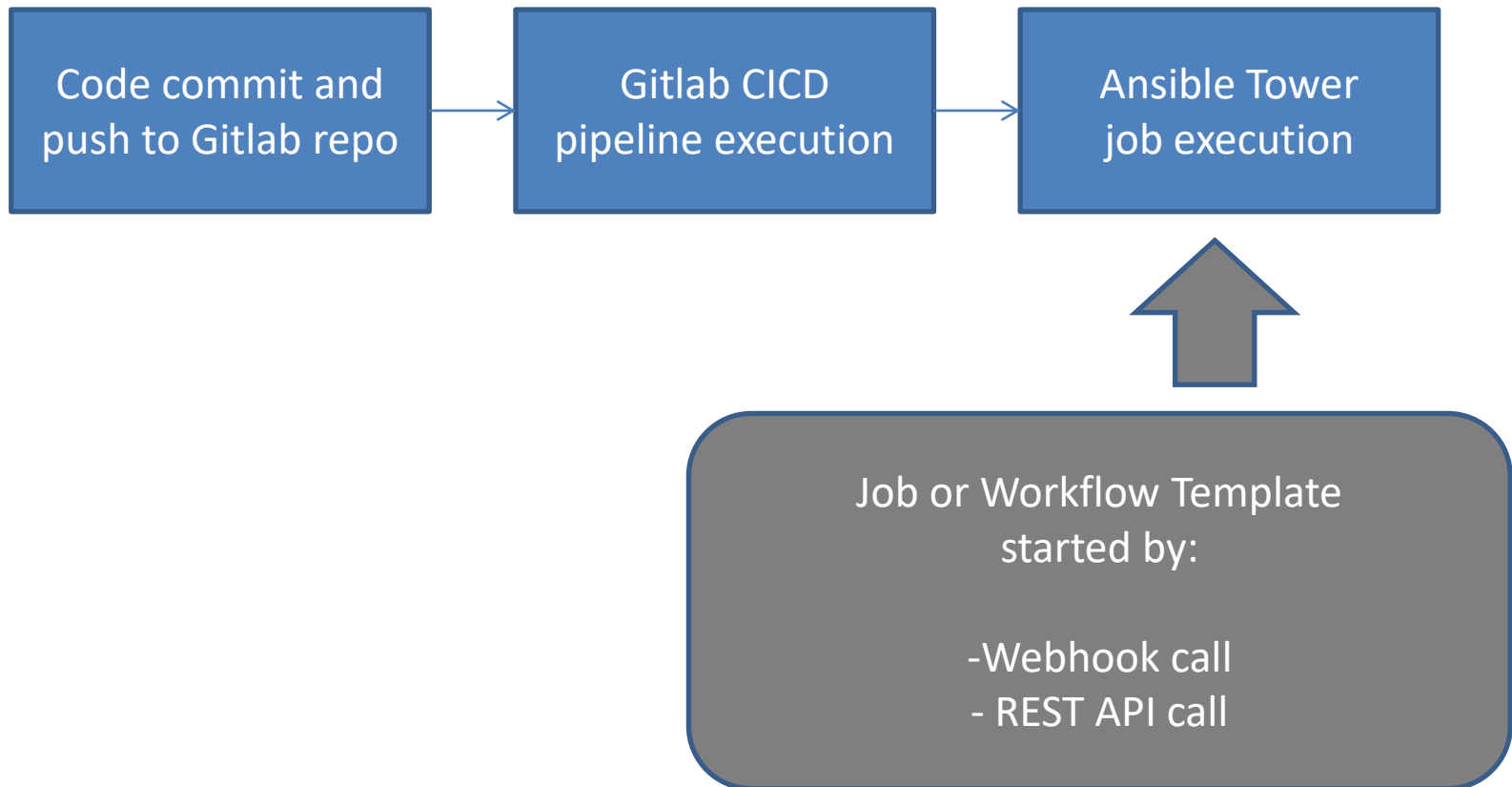
- GitLab CI/CD capabilities
- Ansible Tower Workflow Template overview
- Ansible Tower Job Webhook functionality
- Ansible Tower API integration
- Combine all together and demo



# GitLab Architecture



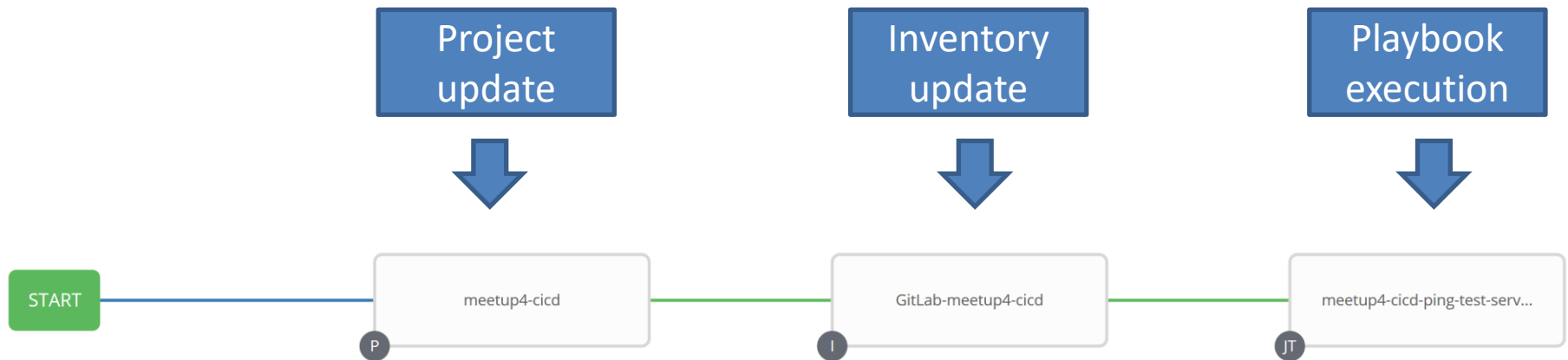
# CICD pipeline process



# Ansible Tower Workflow

WORKFLOW VISUALIZER | workflow-template-meetup4-cicd

TOTAL NODES 3



# Components setup

## #1 Gitlab

- Install Gitlab
  - <https://about.gitlab.com/install/>
- Install Gitlab Runner
  - <https://docs.gitlab.com/runner/install/linux-manually.html>
- Create Gitlab project in GUI (git repository)
  - <https://docs.gitlab.com/ee/gitlab-basics/create-project.html>
- Register Gitlab Runner
  - <https://docs.gitlab.com/runner/register/>
- Create Personal Access Token
  - [https://docs.gitlab.com/ee/user/profile/personal\\_access\\_tokens.html](https://docs.gitlab.com/ee/user/profile/personal_access_tokens.html)
- Upload code to the git repository
  - Ansible playbooks, shell scripts and .gitlab-ci.yml





# Components setup

## #2 Ansible Tower

- Configure credentials types:
  - Gitlab Personal Access Token
  - Source Control (SCM)
  - Machine credential for Ansible Playbook execution
- Configure project:
  - SCM Type : GIT
- Configure inventory:
  - Dynamic source from git repository (hosts.ini file)
- Configure Job Template for playbook execution
- Configure Workflow Template with actions like:
  - Update SCM project
  - Update Inventory from GIT
  - Execute Playbook defined in Job Template

*Reference materials:*

<https://docs.ansible.com/ansible-tower/latest/html/userguide/webhooks.html>



# Demo

- Scenario 1:
  - Gitlab with Ansible Tower Webhook call
- Scenario 2:
  - Gitlab CI/CD with Ansible Tower API call



# Q&A



# Thank You

