**TEKTON Setup – Configuration**

**Tekton Pipelines**

**Pre-Requisites:**

Kubernetes cluster needs to set-up

Run below command:

kubectl apply --filename https://storage.googleapis.com/tekton-releases/pipeline/latest/release.yaml

**Tekton CLI**

For Windows :

choco install tektoncd-cli --confirm

For other OS: go through - <https://github.com/tektoncd/cli>

**Tekton dashboard** –

Command : kubectl apply --filename https://storage.googleapis.com/tekton-releases/dashboard/latest/tekton-dashboard-release.yaml

**Pre-requisites**

In order to install the Tekton Dashboard, please make sure the following requirements are met:

* A [kubernetes cluster](https://github.com/kubernetes/kubernetes) must be installed with version 1.15.0 or later.
* [Tekton Pipelines](https://github.com/tektoncd/pipeline) must be installed in the cluster. See [Installing Tekton Pipelines](https://github.com/tektoncd/pipeline/blob/master/docs/install.md) to install Tekton Pipelines in your cluster.
* Optionally, install [Tekton Triggers](https://github.com/tektoncd/triggers). See [Installing Tekton Triggers](https://github.com/tektoncd/triggers/blob/master/docs/install.md) to install Tekton Triggers in your cluster.

***Accessing Tekton Dashboard on Kubernetes:***

Note: By default, the Dashboard is not exposed outside the cluster.

3 ways to access

*1. kubectl proxy*

Command: kubectl proxy

<http://localhost:8001/api/v1/namespaces/tekton-pipelines/services/tekton-dashboard:http/proxy/>

*2. kubectl port-forward*

kubectl --namespace tekton-pipelines port-forward svc/tekton-dashboard 9097:9097

<http://localhost:9097/>

*3. Ingress Rule*

Advanced solution to expose Dashboard

Doesn’t require ‘Kubectl ‘

Pre-req:

tekton-pipelines is the install namespace for the Dashboard

Ingress controller is required ([ingress controller](https://kubernetes.io/docs/concepts/services-networking/ingress-controllers/))

**Tekton Triggers**

*Why Triggers?*

The Tekton API enables functionality to be separated from configuration (e.g. [Pipelines](https://github.com/tektoncd/pipeline/blob/master/docs/pipelines.md) vs [PipelineRuns](https://github.com/tektoncd/pipeline/blob/master/docs/pipelineruns.md)) such that steps can be reusable, but it does not provide a mechanism to generate the resources (notably, [PipelineRuns](https://github.com/tektoncd/pipeline/blob/master/docs/pipelineruns.md) and [PipelineResources](https://github.com/tektoncd/pipeline/blob/master/docs/resources.md#pipelineresources)) that encapsulate these configurations dynamically

Triggers extends the Tekton architecture with the following CRDs

* [TriggerTemplate](https://github.com/tektoncd/triggers/blob/master/docs/triggertemplates.md) - Templates resources to be created (e.g. Create PipelineResources and PipelineRun that uses them)
* [TriggerBinding](https://github.com/tektoncd/triggers/blob/master/docs/triggerbindings.md) - Validates events and extracts payload fields
* [EventListener](https://github.com/tektoncd/triggers/blob/master/docs/eventlisteners.md) - Connects TriggerBindings and TriggerTemplates into an [addressable](https://github.com/knative/eventing/blob/master/docs/spec/interfaces.md) endpoint (the event sink). It uses the extracted event parameters from each TriggerBinding (and any supplied static parameters) to create the resources specified in the corresponding TriggerTemplate.

Run below command

kubectl apply --filename https://storage.googleapis.com/tekton-releases/triggers/latest/release.yaml

Frequently Used Commands:

* ***kubectl api-resources | sls tekton***
* ***kubectl get –help***
* ***kubectl get namespaces***