Get Started with Codefresh Argo Platform

This document will outline the steps required to get started with Codefresh Argo Platform. Formal documentation will be released with the product.

This document should not be shared outside of your organization

Requirements

Codefresh Argo Platform currently supports "Hybrid Mode". It will require a runtime environment to be installed on a Kubernetes cluster controlled by your organization.

Requirements for this runtime environment:
- Kubernetes Cluster - A freshly installed cluster is recommended for early access installs of the runtime environment. The cluster should not have any Argo components (Events, Workflows, CD, or Rollouts) installed as they will conflict with the Argo components that will be installed by the runtime environment.
- GitHub Personal Access Token (PAT) - Currently, the command line tool that performs the installation of the runtime environment uses a PAT to access the GitHub user or organization to create repositories for the runtime environment. Initially, there will be two repositories created: the runtime configuration and the first git source.
- Workstation with Cluster Access - A workstation is required that has a kubeconfig that can access the Kubernetes cluster and has permissions to install and run the latest Codefresh Command Line program (CLI).
- Ingress Controller (optional, recommended) - To expose the EventSource service(s). The EventSource Service(s) needs to be reached by the Git Provider (e.g., GitHub). For this purpose, you'll need to expose the EventSource Service(s) using a Load Balancer, an Ingress (recommended), or similar.

Installing a Runtime Environment

The following instructions describe installing a runtime environment.

Accessing the Codefresh Argo Platform User Interface

1. Log in to the Codefresh User Interface at the normal SaaS URL: https://g.codefresh.io
2. On the bottom of the left menu bar, there should be a button labeled "Move to Codefresh 2.0". If this button does not appear, then the logged-in user is not an account admin (current early access limitation
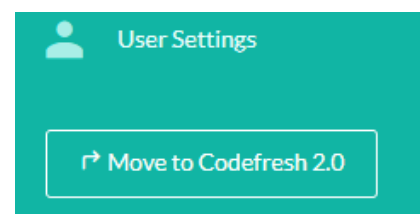
imposed), or an account admin will have to reach out to success@codefresh.io to have early access enabled.

3. Once the "Move to Codefresh 2.0" button is clicked, the Codefresh Argo Platform should load. This user interface will be in "Dark Mode". For the time being, remain in "Dark Mode" as Engineering reports there are bugs in "Light Mode".

Installing the Runtime Environment

1. The initial page should have an "Install Runtime" button if no runtime environment has
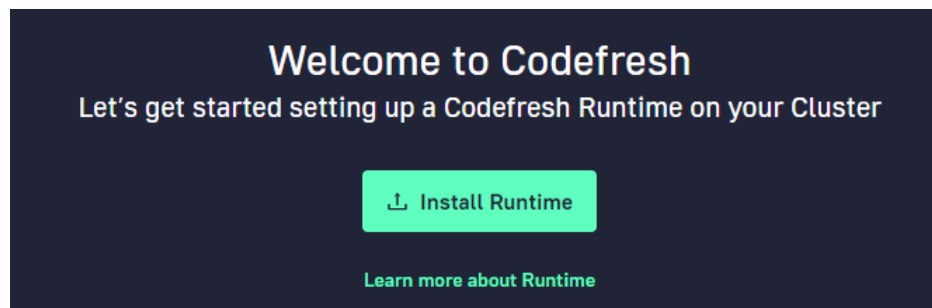
been installed. Click the "Install Runtime" button to be taken to the "Runtimes" page. The "Runtimes" page can also be accessed via the gear icon on the upper menu bar.

2. On the "Runtimes" page, there will be another "Install Runtime" button. If this is the first runtime, the button will be towards the bottom of the page in a message; otherwise, it'll be towards the upper right of the page above the list. The button will expand a sidebar from the right with instructions for installing the updated CLI and runtime.

3. FYI: The CLI command to install the runtime has been updated to have more of a wizard-style entry, instead of just the command line arguments. This may make the command format on the sidebar not quite match the CLI. This is being fixed by Engineering.

4. FYI: The CLI requires Git repository URLs to use the HTTPS format, not the SSH format.

5. The runtime environment, along with the Argo components, are installed into a namespace matching the name given to the runtime. Once the installation is complete, the "Runtimes" page will have a list with the runtime environment listed.

Using the Codefresh Argo Platform

Loading a Pipeline

Pipelines in the Codefresh Argo Platform don't quite map exactly to an Argo Workflow. A pipeline consists of an event source, usually of the GitHub type, a sensor with a trigger, and a workflow template that will be used to create a workflow when the sensor is triggered. All three items are

required to form a pipeline, which won't appear on the "Pipelines" page until all three items exist in the runtime environment. The following steps explain how to load these items:

1. Clone the git sources repository, which was created by the runtime environment installation.
2. Copy the manifests for the items (event source, sensor, and workflow template) into the resources folder in the git sources repository. The resources folder may contain examples of these items. The items use the open source Argo Events and Workflows formats.
3. FYI: While the git sources repository is intended for manifest kinds relating to the Argo components and runtime environment, any manifest kinds for Kubernetes can be included in the git sources repository.
4. Push the changes to GitHub. This will trigger the sync to the runtime environment (with three minutes per Argo CD defaults).
5. Once the manifests are sync'd, the pipeline should appear on the "Pipelines" page.

View Pipeline Information

Information about a pipeline can be viewed in the Codefresh Argo Platform user interface. Currently (as of 2021/10/27), the user interface is read-only, which means any changes to pipelines must be made through the git sources repository. The following explains which pages contain which information:

- Pipelines - Contains information about the pipelines, which consist of an event source, a sensor, and a workflow template. The pipeline pages contain a sub-page which contains information and metrics about the pipeline and executions of the pipelines.
- Workflows - Contains information about pipelines and workflows as data and events work through the system. This page focuses on the Continuous Integration (CI) aspects of software delivery, which is primarily handled by the Argo Events and Workflows components. FYI: This page is currently under development and (as of 2021/10/27) is very incomplete.
- Applications - Contains information about deployments and rollouts of applications into other Kubernetes clusters. This page focuses on the Continuous Deployment (CD) aspects of software delivery, which is primarily handled by the Argo CD and Rollouts components. FYI: This is currently (as of 2021/10/27) a copy of the GitOps dashboard of the current Codefresh platform. There are improvements planned for this page.

Questions and Comments

During usage of the Codefresh Argo Platform, please take notes about good and bad experiences. Please send any questions or comments, both good and bad, to Codefresh using Slack (#cap-feedback) or email (to success@codefresh.io).