**CI/CD Implementation**

1. **Summary:**

   Nephio Project uses combination of Prow with additional help of GitHub Actions as a CI/CD and GitHub management solution.

   Prow is a Kubernetes based CI/CD, its main features:

   - Job execution for testing, batch processing, artifact publishing
   - GitHub events are used to trigger post-PR-merge (postsubmit) jobs and on-PR-update (presubmit) jobs
   - Support for multiple execution platforms and source code review sites
   - Pluggable GitHub bot automation that implements /foo style commands and enforces configured policies/processes
   - GitHub merge automation with batch testing logic
   - Front end for viewing jobs, merge queue status, dynamically generated help information
   - Config-as-a-code with automagically applying changes.
   - Automatic GitHub org/repo administration configured in source control.
   - All benefits of running on Kubernetes - replication, load balancing, rolling updates, addons like Istio.
   - JSON structured logs.
   - Prometheus metrics.

   What do we do with it:

   - Code checking for syntax, common errors, security problems
   - Licensing compliance scanning
   - Artifacts building and delivery
   - Testing environment provisioning
   - Keeping GitHub policies applied

2. **Diagram**