Argo CNCF Graduation Update

Intuit, Red Hat, BlackRock, Codefresh

Argo Overview

Argo is a set of Kubernetes-native tools for running and managing jobs and applications on Kubernetes. This is exemplified by the Argo tagline, "Get stuff done with Kubernetes!"

Argo makes it easy to combine **workflows**, **events** and **deployments** to declaratively create jobs and applications on Kubernetes.

- [Argo Workflows](#) - Container-native Workflow Engine
- [Argo CD](#) - Declarative GitOps Continuous Delivery
- [Argo Rollouts](#) - Declarative Progressive Delivery and Experimentation
- [Argo Events](#) - Event-based Dependency Manager

A Brief History

Get stuff done with Kubernetes

Open source Kubernetes native workflows, events, CI and CD

applatix

|	
Aug 2017	Argo incubated at Applatix
Jan 2018	Applatix acquired by Intuit
Mar 2018	Argo CD incubated at Intuit
May 2018	BlackRock contributes Argo Events
Jun 2018	Kubeflow Pipelines powered by Argo
July 2018	Argo CD in production at Intuit
Nov 2018	Argo Rollouts incubated at Intuit
May 2019	Argo Rollouts launched at KubeCon
May 2019	Intuit selected as CNCF Top End User
April 2020	Argo gets accepted as incubating CNCF project
Aug 2020	Argo Bootstrap Committee formed
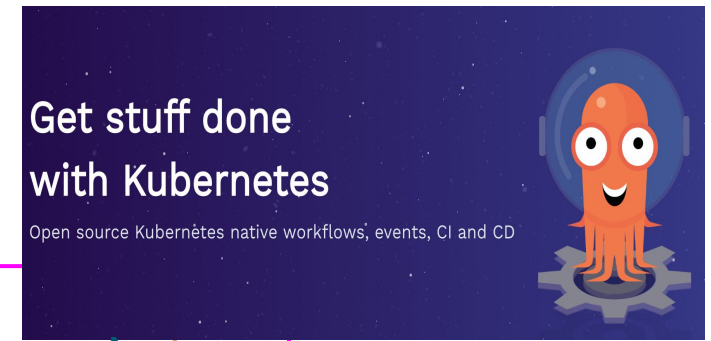
Applatix joins Intuit!

Pratik Wadher Following
Jan 22, 2018 · 2 min read

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Community and Project Statistics

- 15000+ Stars, 3000 forks
- 3800 contributors, 900+ code contributors, 5700 slack members
- Contributions are spread across vendors, users and individuals
- Strong growth of contributors and members outside Intuit
- 350 releases, ~2x since incubation!

Data from: https://argo.devstats.cncf.io/dashboards, https://star-history.t9t.io/
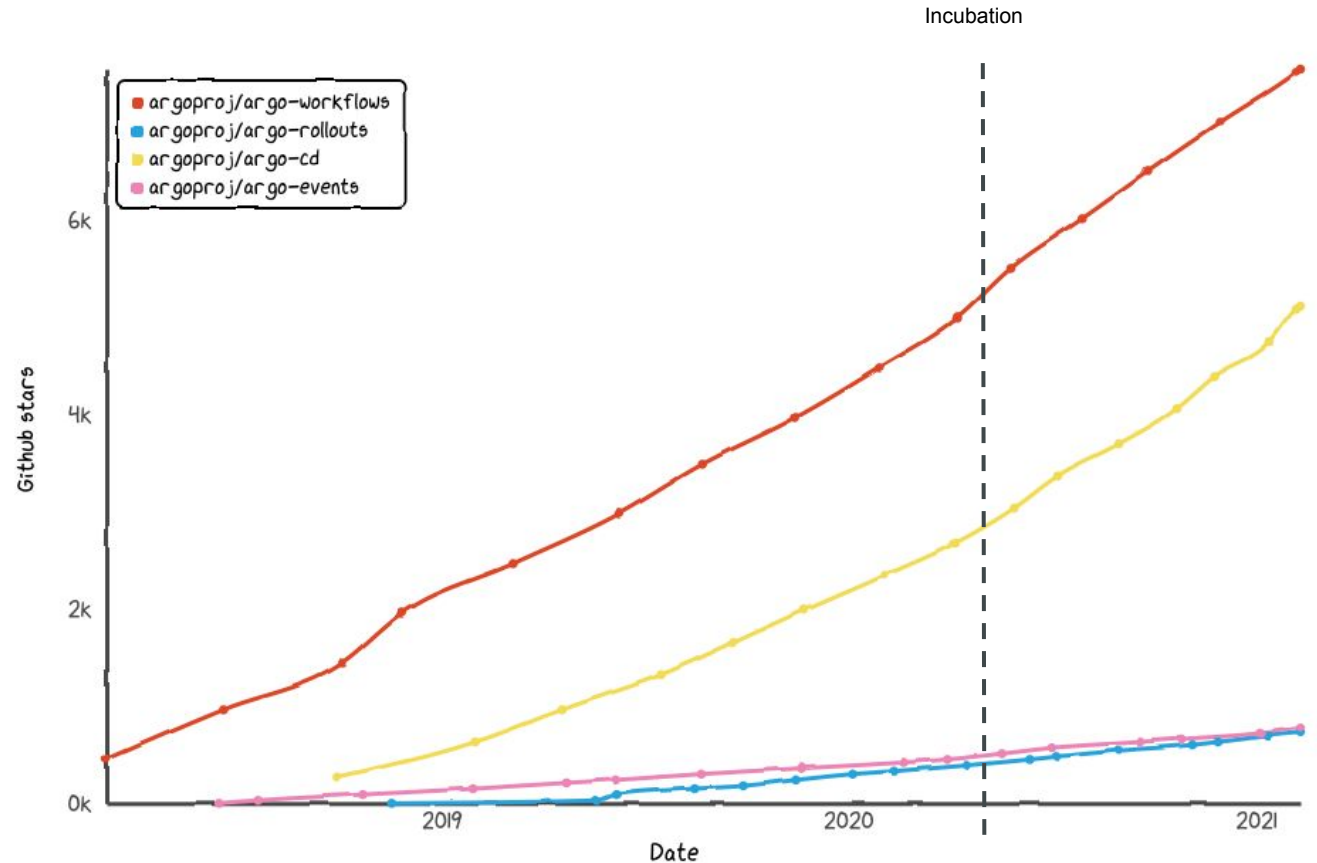
Argo Community (Public References)

Argo Community Chatter

hamptos @hamptos — Mar 6
Man oh man has @argoproj helped me learn to stop worrying and love K8s.

Eric Murphy @murphye — Feb 24
After using @argoproj more, I am definitely of the opinion that any developer using k8s should be using Argo to deploy their apps. It just makes things so much easier and faster, especially when you are constantly adding and removing new resources, it will clean up after you!

Yuan Tang @TerryTangYuan — Feb 3
Check out Argo Workflows v3.0! Thanks @argoproj for recognizing my contributions. It's been a pleasure working with the Argo community.

GitHub repo: github.com/argoproj /argo/

#k8s #cloudnative #MachineLearning

argoproj @argoproj
Learn about Argo Workflows v3.0: blog.argoproj.io/argo-workflows...

♡ ↑↓2 ♡5 •••

Michael LaRocca @LaRoci... — Feb 27
Replying to @oocx @fluxcd and 3 others
I was very satisfied with argocd and rollouts. A lot of room for control with argo hooks pre/pos sync and the ui is great.

♡ ↑↓ ♡1 •••

smana @_smana_ — Feb ...
This video is absolutely awesome! thank you @vfarcic.
CD, workflows, canary deployment, and so on using @argoproj stack ❤️

youtube.com/watch?v=XNXJtx...

argo
Events
Workflows
CD
Rollouts
AUTOMATE EVERYTHING!

♡ ↑↓4 ♡3 •••

Jonah Kowall @jkowall — Feb 24
Great move @openshift openshift.com/blog/announcin... adding @argoproj to the stack. We are going to look at it soon here.

♡ ↑↓ ♡1 •••

Shoks ✈️ @shoksuno — Feb 5
Holy Moly ... dieses ArgoCD ist also nochmal um Welten cooler als dass ich dachte. Und ich dachte mir schon das es extrem cool ist.

Und das obwohl meine Version schon fasst 1 Jahr alt ist.

Kubernetes ohne Argo geht für mich gar nicht mehr.

Arthur AI @itsArthurAI — Jan 12
Replying to @argoproj
Thanks for sharing our post! We <3 Argo.

♡ ↑↓ ♡1 •••

Brent Laster @BrentCLaster — Feb 22
Another new class on #oreilly is almost full - this one on using Argo CD to do continuous delivery on #Kubernetes leveraging #git. Better known as #gitops. Sign up and learn a better way to manage your #k8s deployments. Get a seat at learning.oreilly.com/live-training/...

♡ ↑↓ ♡1 •••

Michael Goodness @opsg... — Jan 29
This was a good work week at @MLB. Participated in the annual Tech Summit with the clubs. Converted another batch of applications to run in our ballpark #Kubernetes clusters. And keep doing more cool stuff with @argoproj.
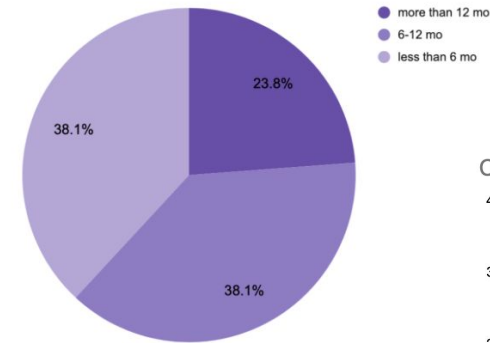
♡1 ↑↓3 ♡17 •••

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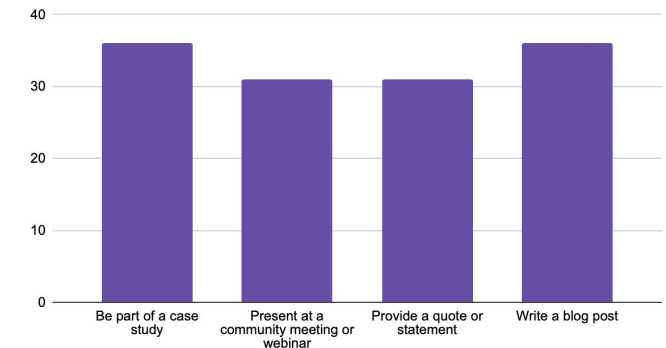
2021 Argo User Surveys

- Surveys ran for two weeks in February w 120 unique responses
- Resulting NPS scores of 68 and 66 for CD and WF respectively
- Mix of user experience level and use cases
- Nearly 90% reported in production
- 25% use more than one Argo project
- Almost 50% willing to share and evangelize Argo

"one of the best cloud native tools i've ever seen"


How long have you been in production with Argo CD?
- more than 12 mo
- 6-12 mo
- less than 6 mo

23.8%
38.1%
38.1%

Could you?

Be part of a case study | Present at a community meeting or webinar | Provide a quote or statement | Write a blog post

Workflows Use cases

Machine Learning	17 (37%)
Infrastructure Automation	21 (45.7%)
Data Processing	21 (45.7%)
ETL	12 (26.1%)
Batch Processing	18 (39.1%)
CI/CD	20 (43.5%)

"We picked it for the easy integration with ArgoCD"

"...lightweight, kubernetes native. Great community."

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Major Release History
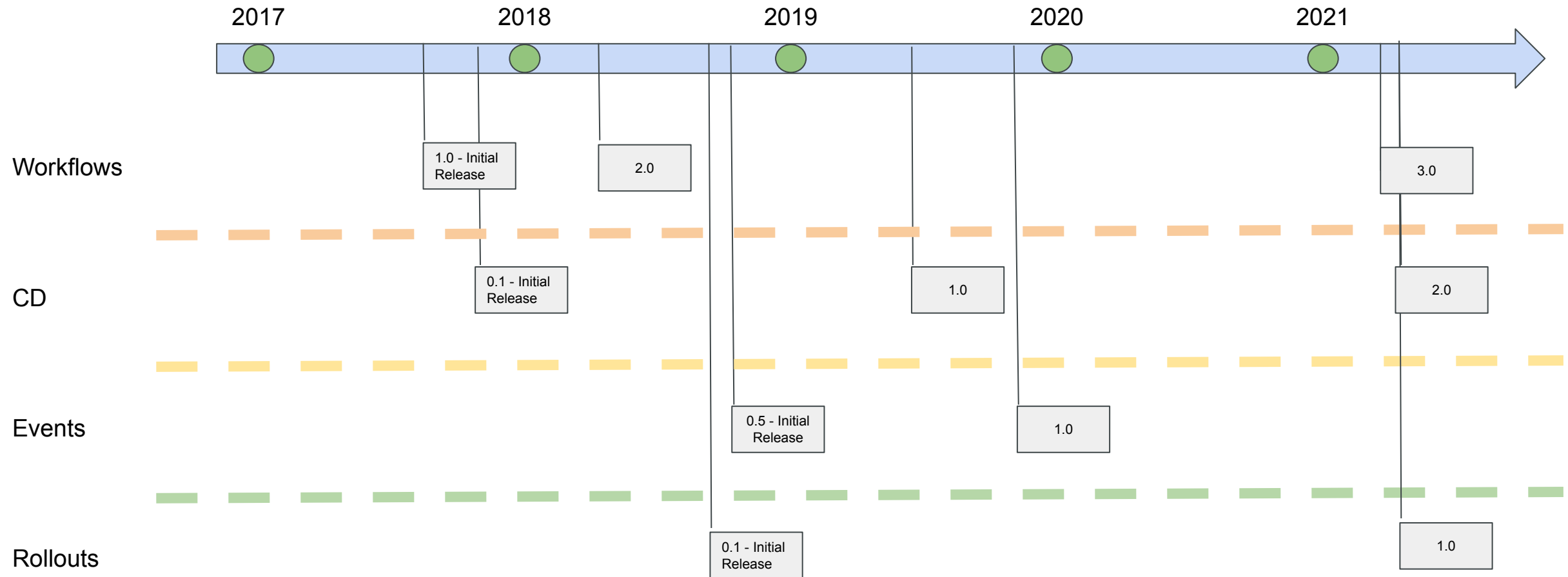
Graduation Security Review Status

- Two phase security review with Trail of Bits -
  - Threat Model
  - Code audit.

- Code review found 35 issues, ranging from Informational to Medium

- Threat model found 22 issues, ranging from Informational to High

- No critical issues found, meeting graduation criteria

- Prioritization and fixes are underway, some are already fixed and will be included in upcoming releases
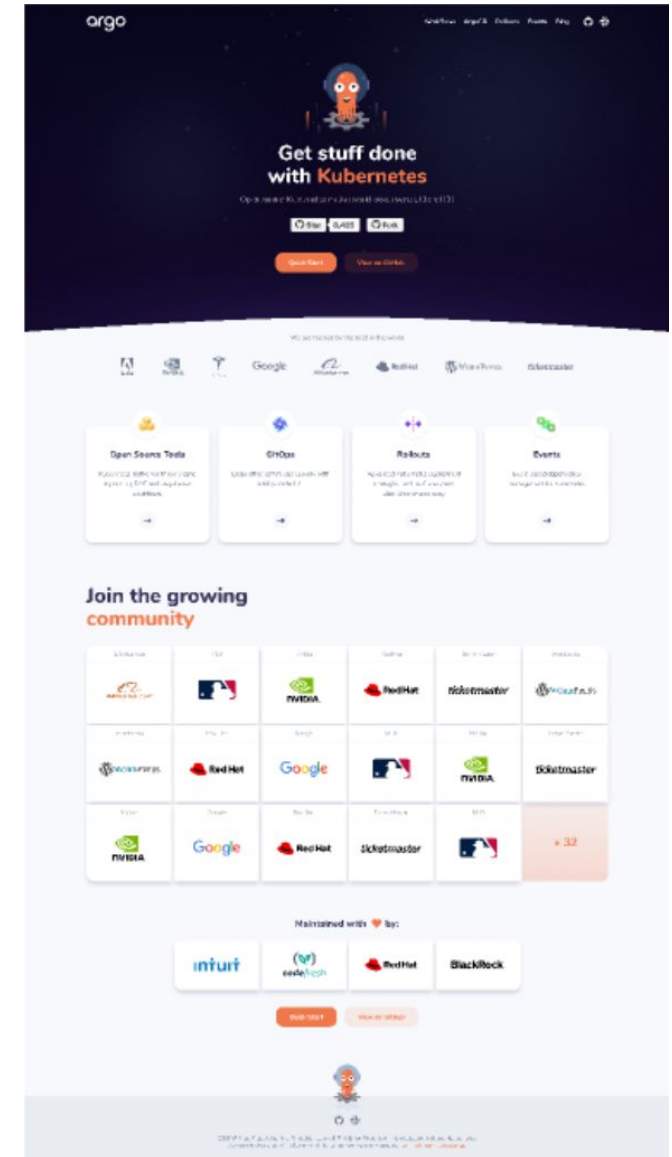
Code Review Issues Found

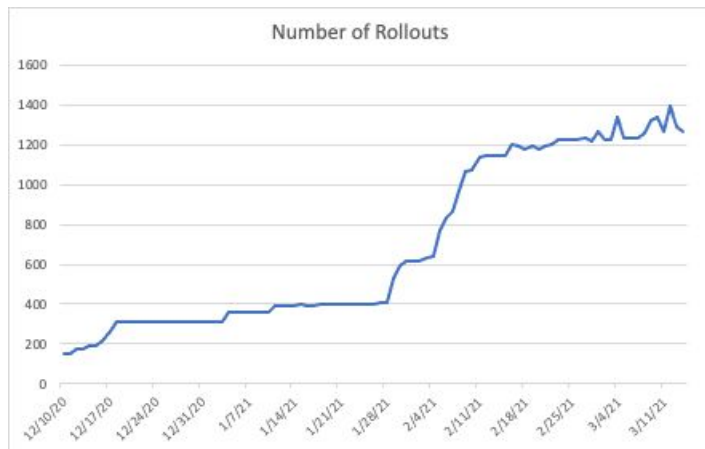|	
Total Medium-Severity Issues	3
Total Low-Severity Issues	16
Total Informational-Severity Issues	16
Total Undetermined-Severity Issues	0
Total	35

Threat Model Issues Found

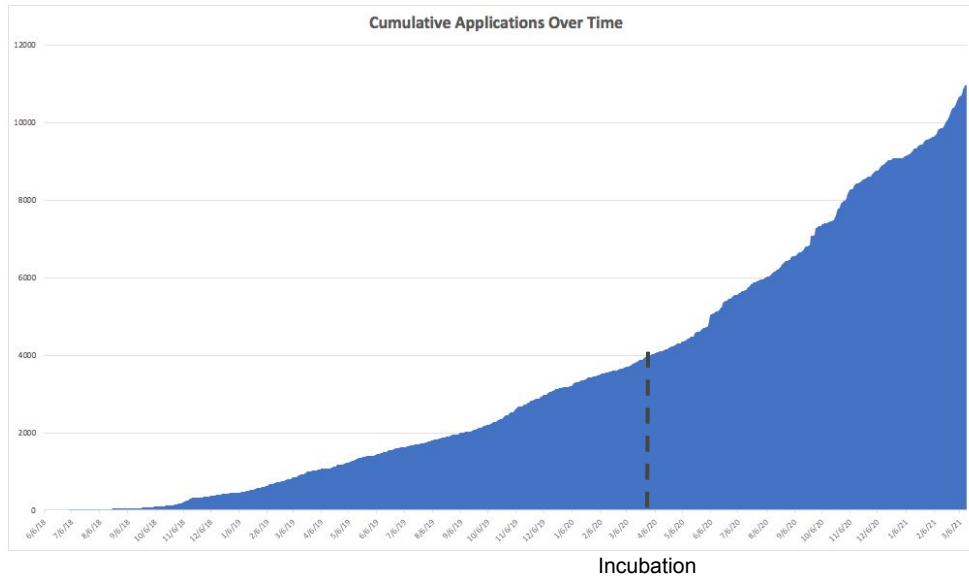|	
Total High-Severity Issues	2
Total Medium-Severity Issues	9
Total Low-Severity Issues	9
Total Informational-Severity Issues	1
Total Undetermined	1
Total	22

New Website Design and Content

- Designer review and new proposal underway

- Consolidate and coordinate projects

- Streamline documentation and collateral

- Getting started guides

- Quotes and case studies

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Kubernetes at scale @Intuit

Cumulative Applications Over Time
Incubation

Number of Rollouts

Workflow Executions

- **Intuit**
  - 4 business units
  - 30+ business segments
  - 5000+ service developers onboarded
  - 80+ Kubernetes platform developers/devops engineers
- **Intuit Argo Kubernetes infrastructure**
  - 11000+ Applications
  - 11500 managed namespaces
  - 350+ cluster
  - 15000+ nodes

Roadmap - One-Year Outlook

Argo CD	Argo Workflows/Events	Argo Rollouts
- Better observability for progressive delivery - Cluster level UI visibility - Lightweight GitOps agent - Extensibility APIs to enable 3rd party integration	- Workflow authoring capabilities through Python SDK - Workflows spanning multi-cluster and multi-namespace - A plugin framework for integration and extension of new template types and 3rd party tools	- Adoption of Argo Notification framework - More flexible routing based on headers - Traffic mirroring to canary pods

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Thank you!