Lessons Learned

From Argo CD Users

The 2022 Survey Report

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Each year, as Argo Project maintainers, we survey our community users to better understand their use cases, pain points, and satisfaction with each of the tools within the project. The Argo Project committee has published the raw results of the 2022 survey. In this report, we drill down into the results from the Argo CD/Rollouts survey to better understand correlations and trends.
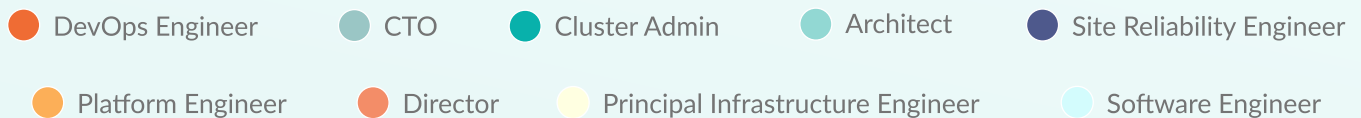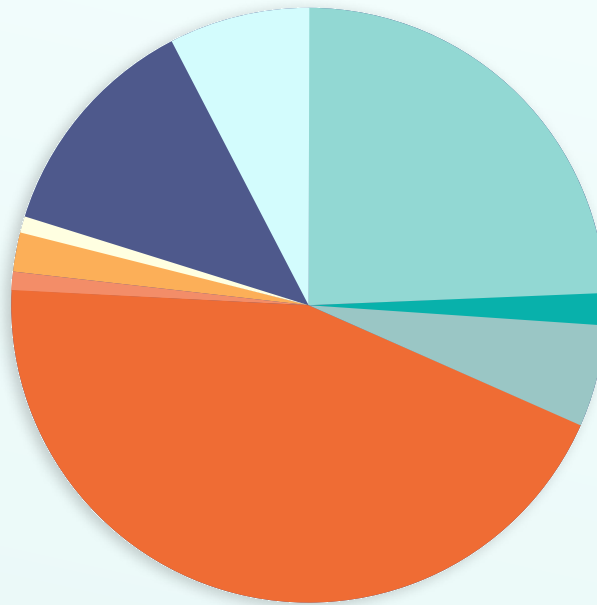
Contents

Who participated?

Respondents range from Argo users like software and DevOps engineers up to CTOs and senior management.

Survey respondents by job type

- ● DevOps Engineer
- ● CTO
- ● Cluster Admin
- ● Architect
- ● Site Reliability Engineer
- ● Platform Engineer
- ● Director
- ● Principal Infrastructure Engineer
- ● Software Engineer

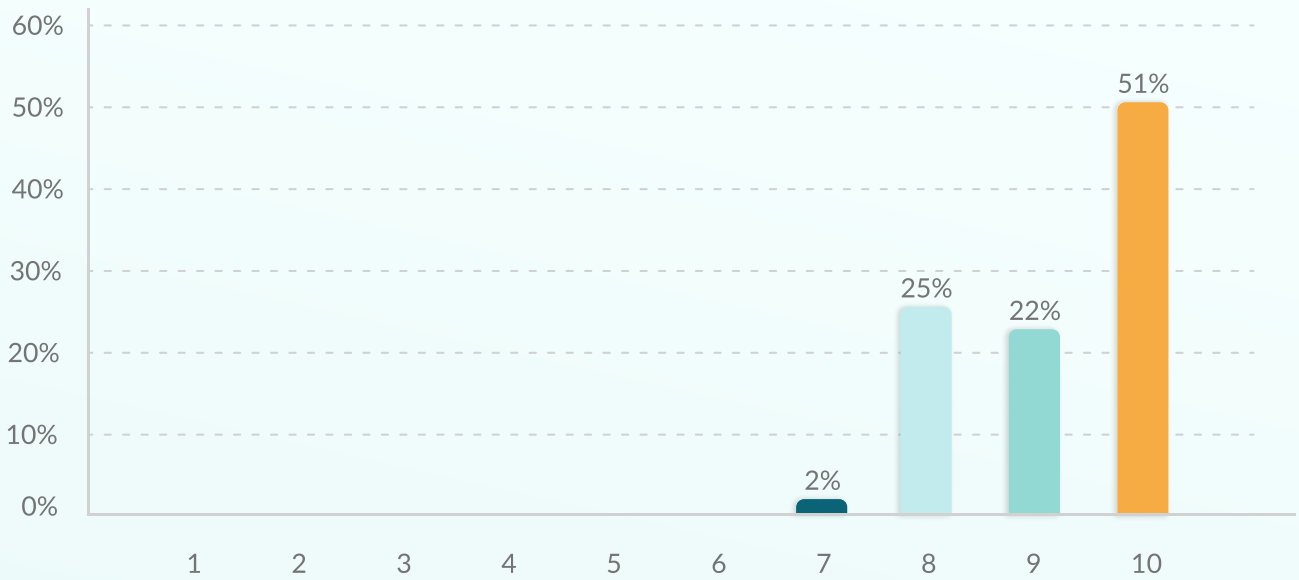# How likely are users to recommend Argo CD and Rollouts?

Respondents were asked how likely—on a scale of 1 to 10—they are to recommend Argo CD and Rollouts to a friend or colleague. The results are overwhelmingly positive with more than half of respondents rating Argo a 10 and almost everyone rating 8 or higher.

User satisfaction based on this kind of data is often represented by a metric called the Net Promoter Score (NPS), which ranges from -100 to 100. The NPS for Argo CD and Rollouts is an excellent 72—higher than Apple iOS (51)[1] and even challenging Starbucks (77).[2] Perhaps most telling, the score increased four points from last year.

[1] Trustmary, Apple NPS in 2021 - Trustmary | Trustmary

[2] Customer Guru, Starbucks Net Promotor Score 2022 Benchmarks | Customer.guru

How likely are you to recommend Argo to a friend or colleague?

Enthusiasm for Argo CD and Rollouts spanned job roles—from hands-on developers and engineers to senior leadership. Directors and CTOs especially appreciate the business benefits Argo brings to their organizations.[3]

How likely to recommend Argo by job role?
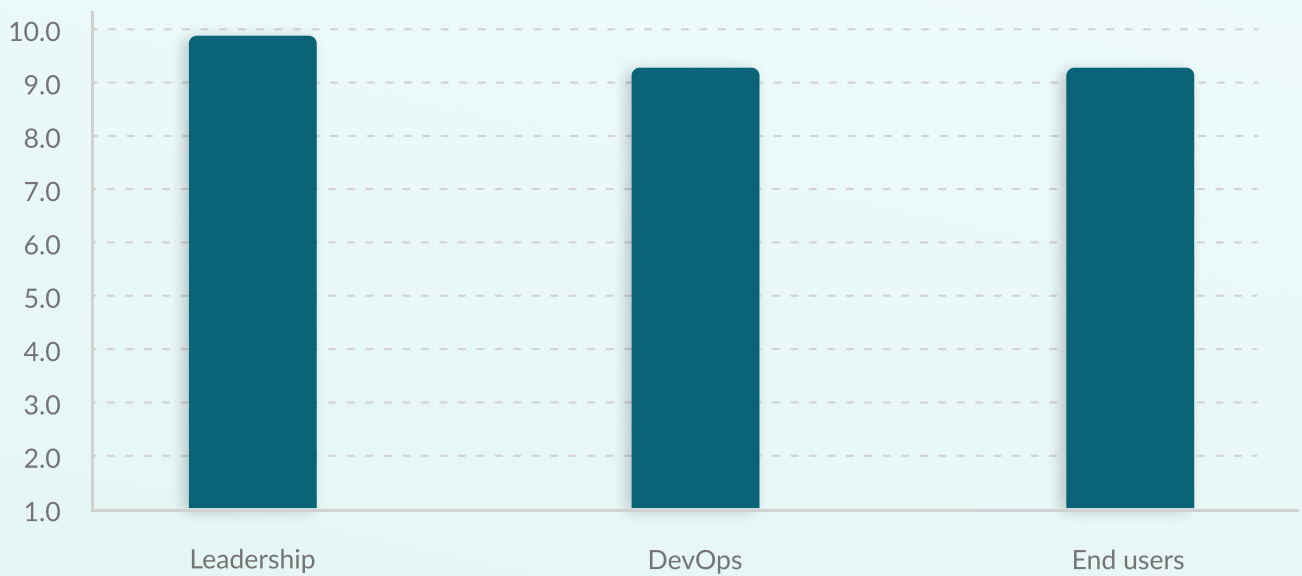
[3] Leadership category: CTO, Director; DevOps category: Site Reliability Engineer, DevOps Engineer, Cluster Admin, Architect, Principal Infrastructure Engineer; End user category: Software Engineer, Platform Engineer

Argo CD users showed similar levels of satisfaction regardless of which tools they previously used. Those coming from Flux, Jenkins, and DIY solutions were especially pleased with Argo CD.
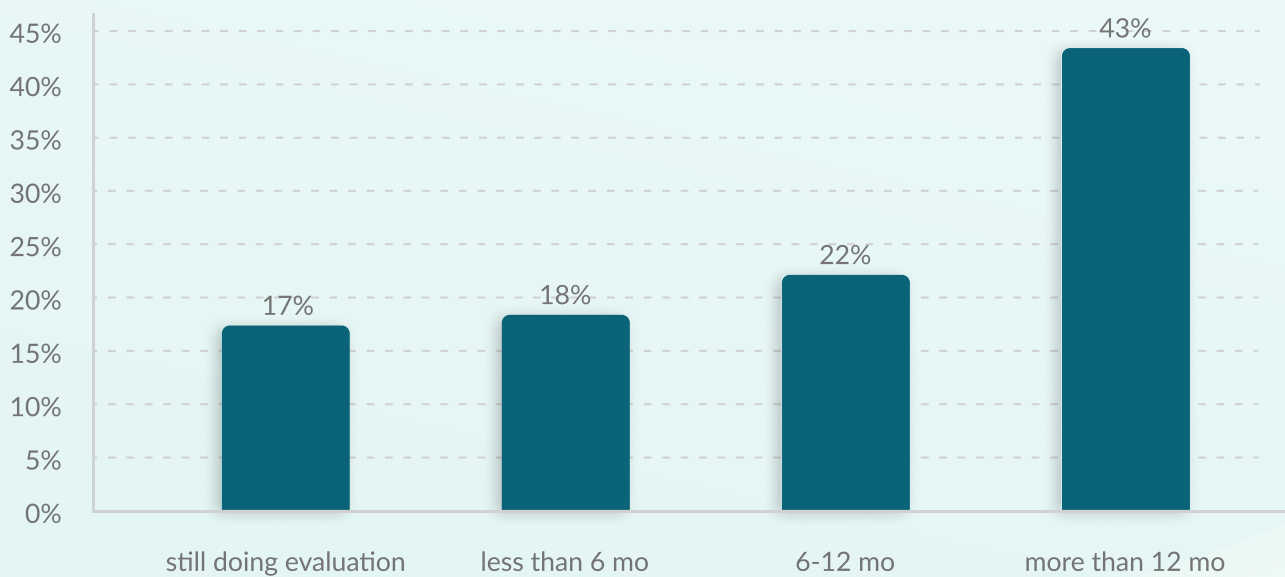
How likely to recommend Argo based on previous solutions tried?
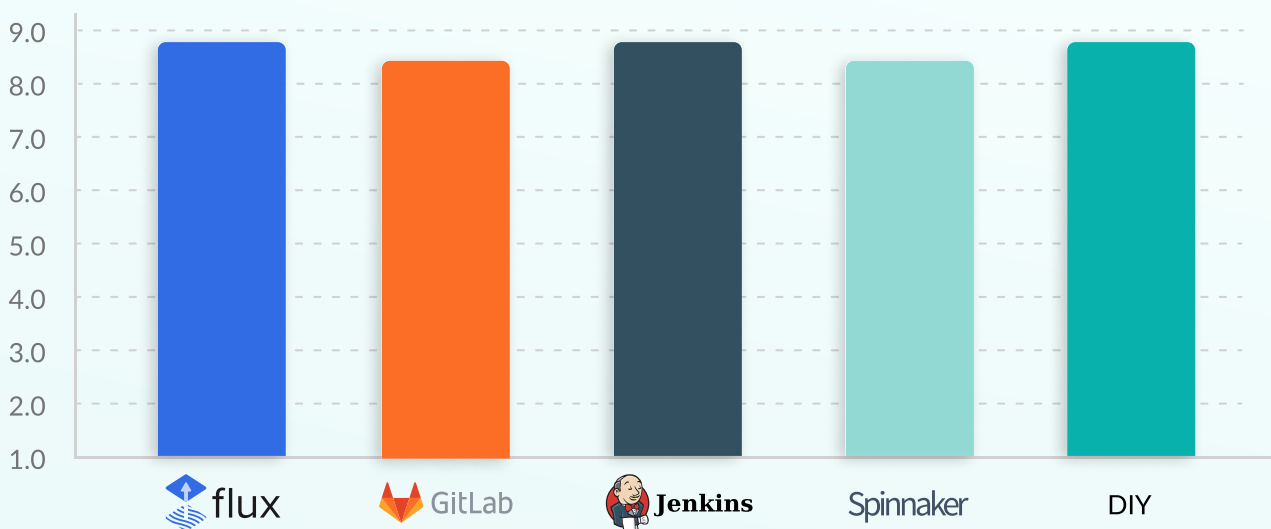
How long have users been in production with Argo CD and Rollouts?

Responses are based on real experience using Argo CD in production. More than 40% of respondents have had Argo CD or Rollouts in production for more than one year.

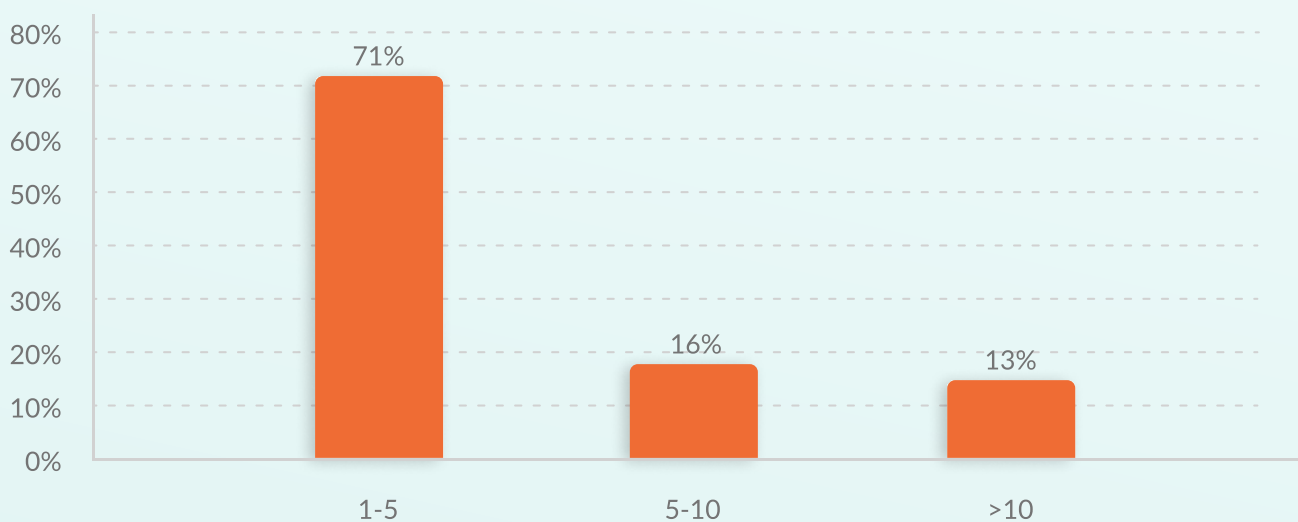**How long have you been in production?**

At what scale are users deploying Argo CD and Rollouts?

We can gauge the scale of deployed Argo solutions in several dimensions: the number of Argo instances in use, the number of clusters connected to an instance, and the number of applications users are managing. Here is some of the most meaningful data along with estimates we base on the data.

How many Argo CD applications do you have?

Category	Percentage
<50	33%
50-500	53%
500-2000	11%
2000+	3%
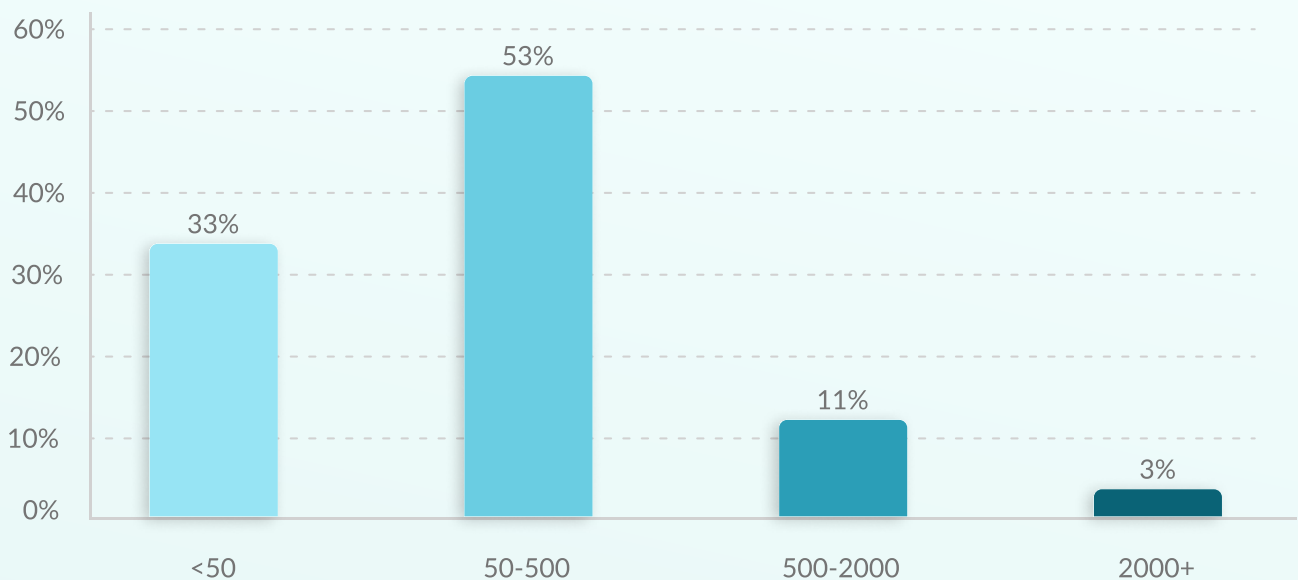
How many Argo CD instances do you have?

Category	Percentage
1-5	71%
5-10	16%
>10	13%

What is the maximum number of clusters connected to a single Argo CD instance?
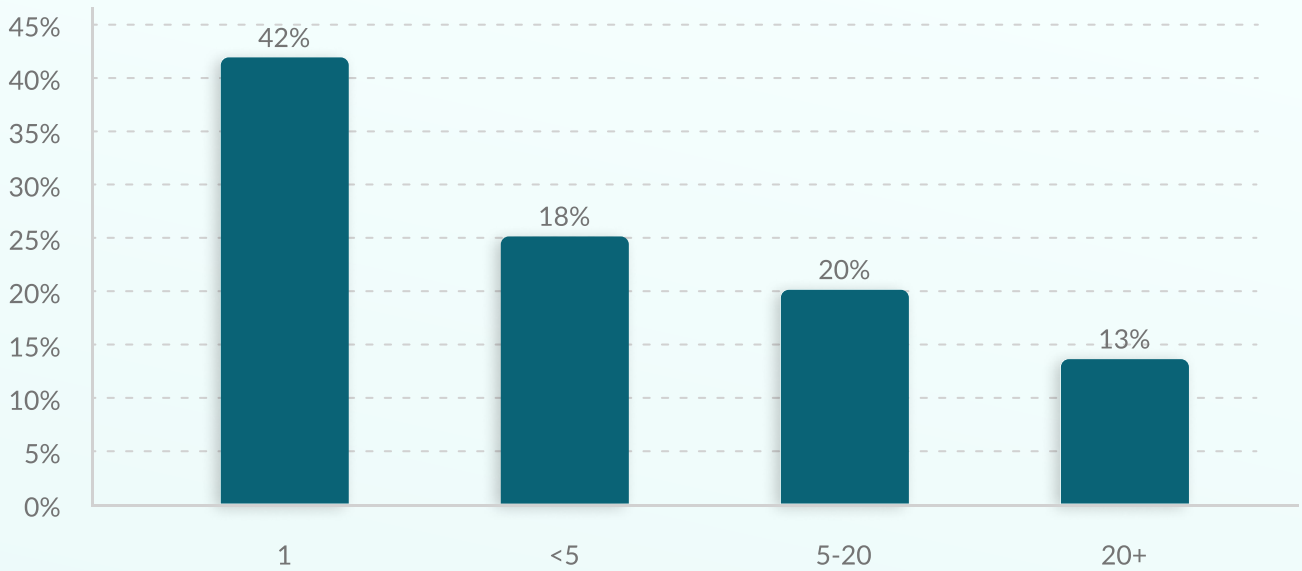
As we would expect, most user organizations currently run fewer than five Argo instances with fewer than five clusters connected to each instance. But a significant number of organizations operate on a larger scale.

Drawing estimates from this data, we get a good idea how user organizations are deploying Argo and at what scale.[4]

Estimated instances per respondent	5
Estimated clusters per instance	2
Estimated apps per respondent	380

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[4] Estimates derived by multiplying number of respondents selecting each range by the midpoint of the range or 150% of the "or greater" selection.
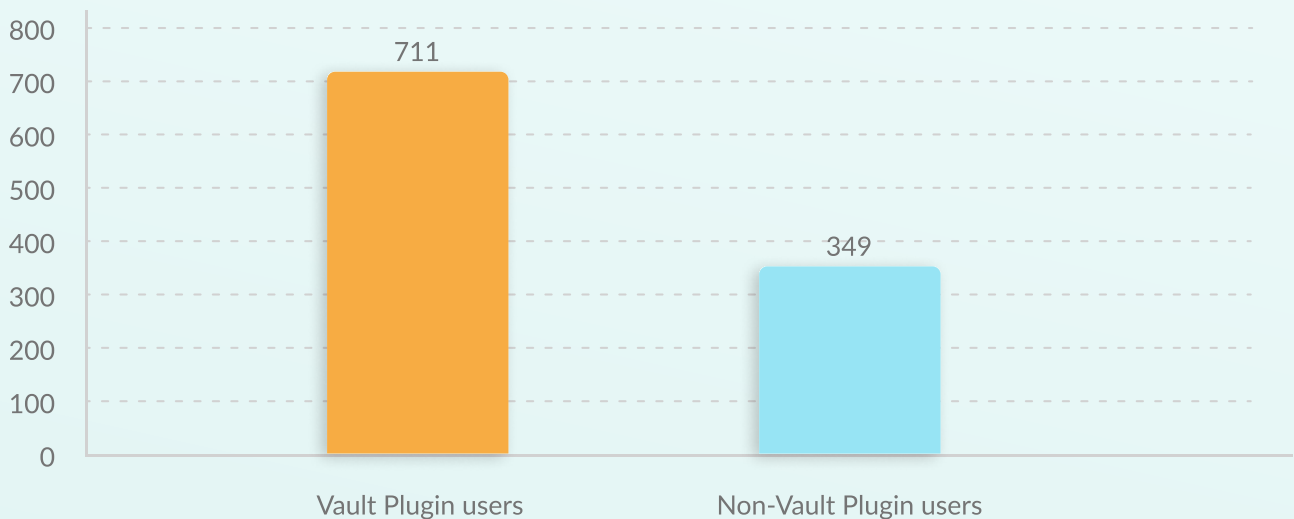
What factors affect or enable scale?

We examined how several factors relate to the scale respondents report. One factor is the use of the Argo CD Vault Plugin for secrets management.

Number of clusters reported by Vault Plugin and Non-Vault Plugin users
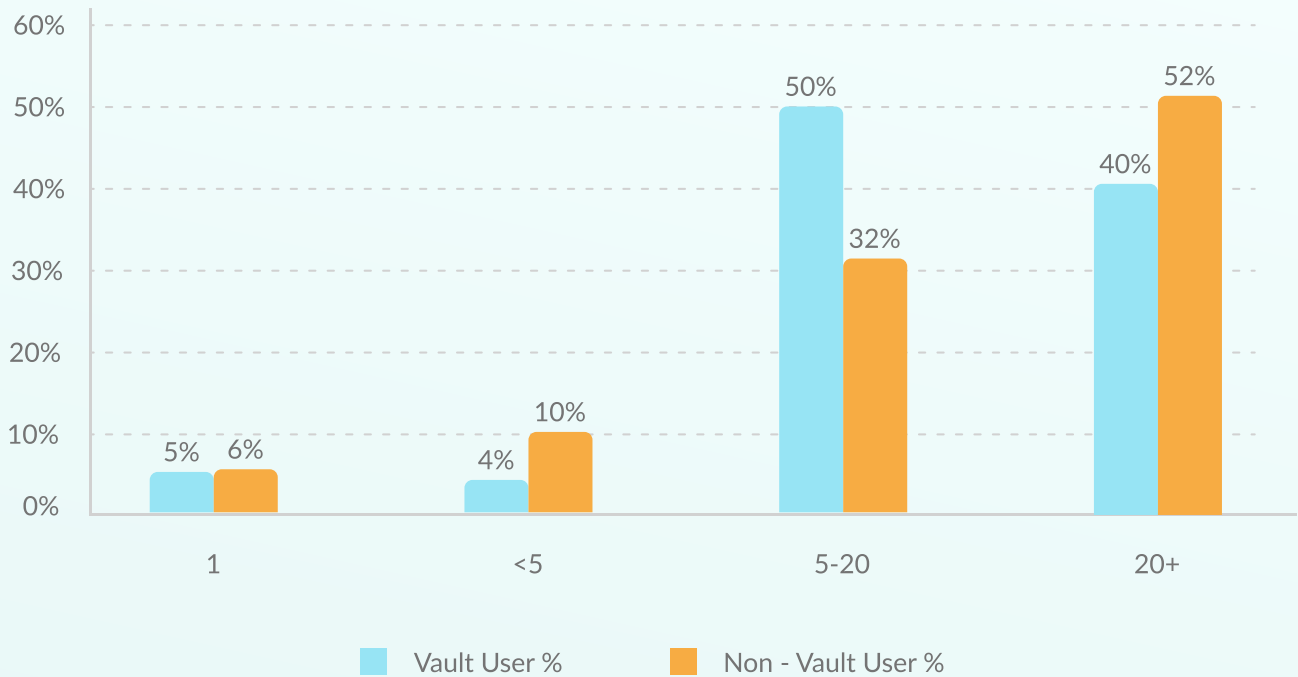

**Average number of apps for Vault Plugin and non-Vault Plugin users**

Vault users show robust maturity in their adoption with more applications and somewhat more clusters managed. But while Vault users were more likely to manage 5-20 clusters, non-Vault users shows greater presence in managing more than 20 clusters. This may suggest that once passed the 20+ cluster range, teams start to opt for other solutions. It's possible that pricing of Vault plays a role in this finding. In follow-up surveys we'll look more closely at secrets management as its own category.

We performed a similar analysis of scale based on user adoption of Argo CD ApplicationSet.

Number of apps for respondents using vs. not using Argo CD ApplicationSet

■ Using ApplicationSet   ■ Not using ApplicationSet

Estimated apps per respondent
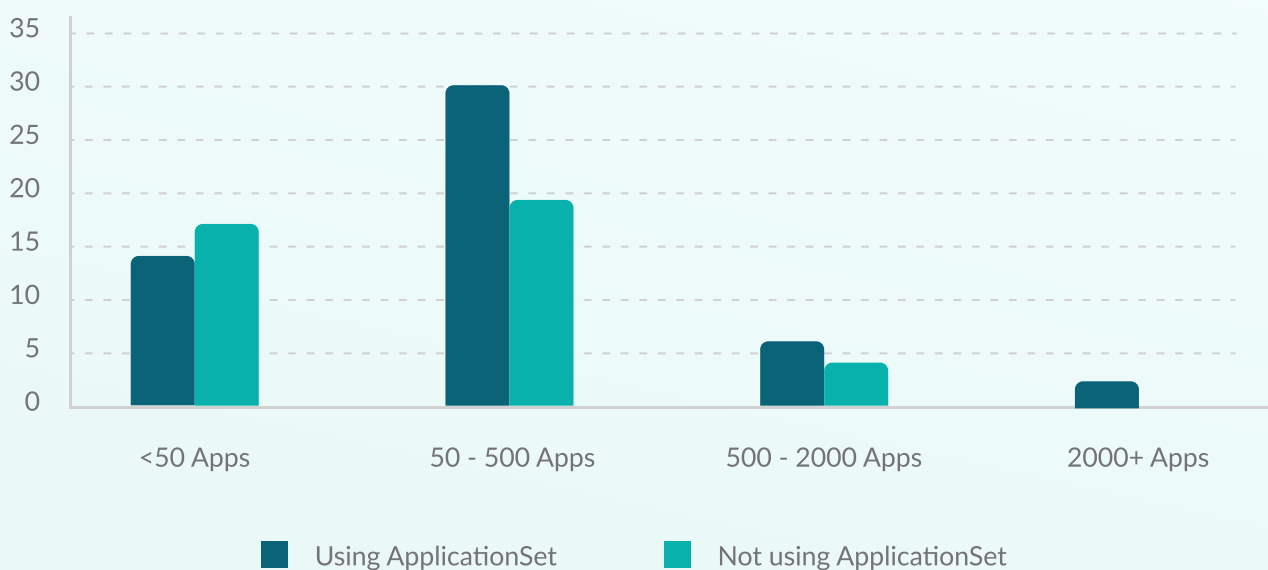
Using ApplicationSet   Not using ApplicationSet
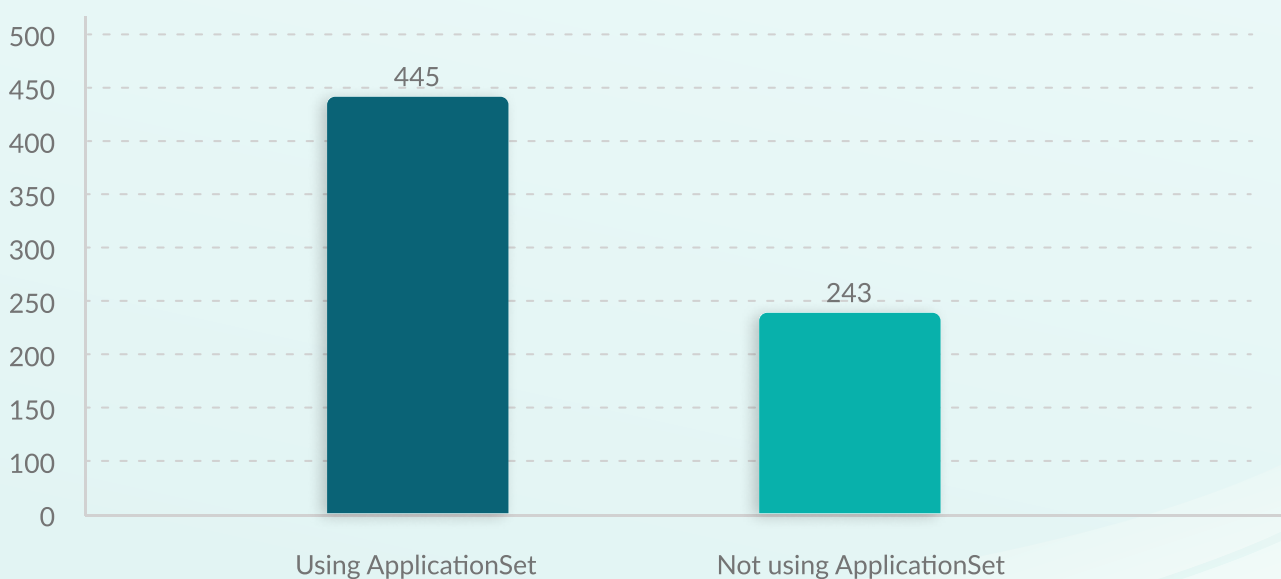
ApplicationSet allows users to template the creation and management of applications. As a result, the adoption of ApplicationSet consistently correlates with greater scale. All respondents with more than 2000+ apps are using ApplicationSet, though this represents only about three percent of users.

## Which respondents plan progressive deployments?

Argo Rollouts enables users to implement progressive deployment strategies like blue-green, rolling deployments, and canary deployment. So comparing respondents who are using Rollouts or plan to provides insight into how widely accepted these strategies are. Almost 75% of respondents currently use or are evaluating Argo Rollouts.

Practicing GitOps with Argo CD is a great accelerator for adopting progressive delivery. While adoption is still low—most Argo users are in the evaluation phase—these results show robust enthusiasm and progress for adopting progressive delivery.

Are you using Argo Rollouts?

16%

27%

57%

■ No, and we don't plan to   ■ No, but we're evaluating it   ■ Yes
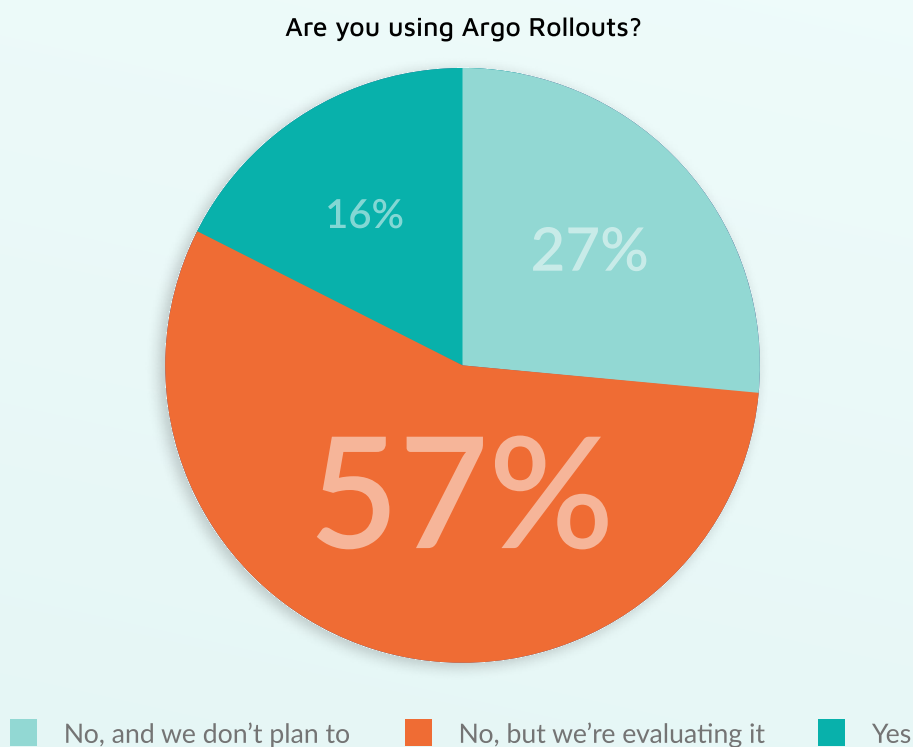
The ability to achieve progressive deployments depends somewhat on the service mesh/traffic management solution the user has implemented.
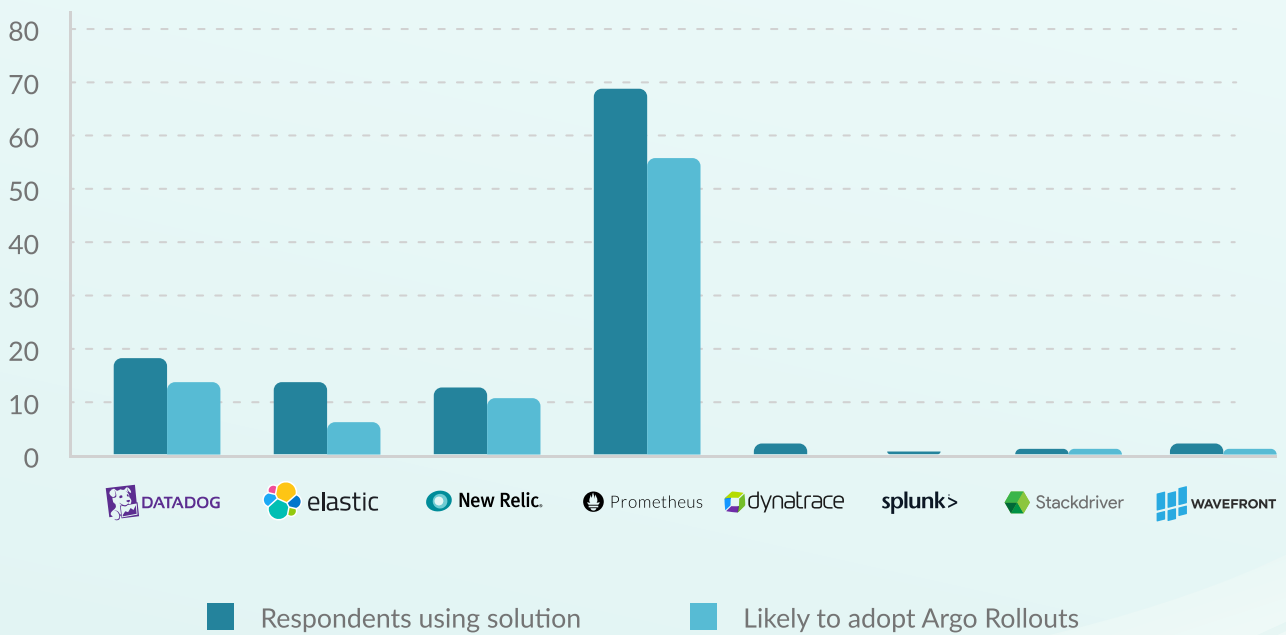
Users likely to adopt Argo Rollouts by service mesh/traffic management solution

Istio | NGINX *Part of F5* | aws ALB | ambassador | træfiklabs | Kong | N/A

■ Total users   ■ Likely to adopt Argo Rollouts
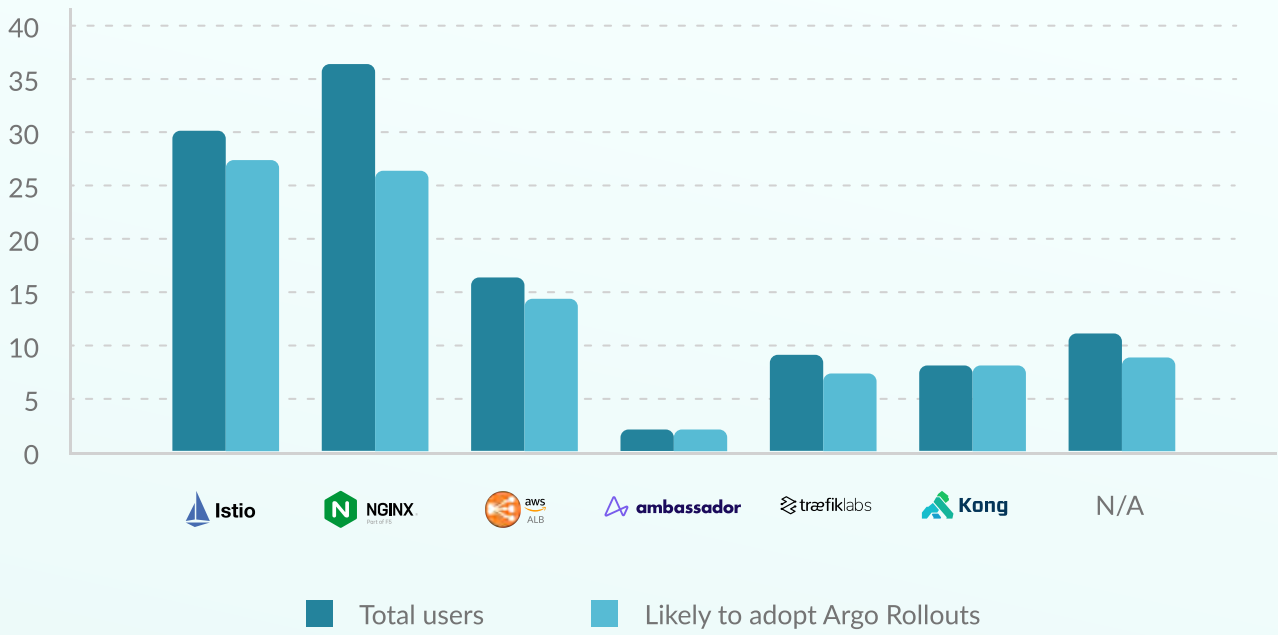
Istio and AWS ALB users are the most likely to have adopted or be in the process of adopting Argo Rollouts, and NGNIX users are the least likely. The differences are small, though, and met only 90% statistical significance. Fortunately, Argo Rollouts supports all of these options.

An analysis by metrics solution provider shows similar interest across solution providers.

Users likely to adopt Argo Rollouts by metrics solution

DATADOG | elastic | New Relic. | Prometheus | dynatrace | splunk> | Stackdriver | WAVEFRONT

■ Respondents using solution   ■ Likely to adopt Argo Rollouts

Prometheus is hands down the most popular logging solution for Argo CD and Rollouts users.

Why did users choose Argo?

This free-format survey question elicited widely varied responses. The size of the text in this word cloud illustrates how often the word was mentioned.
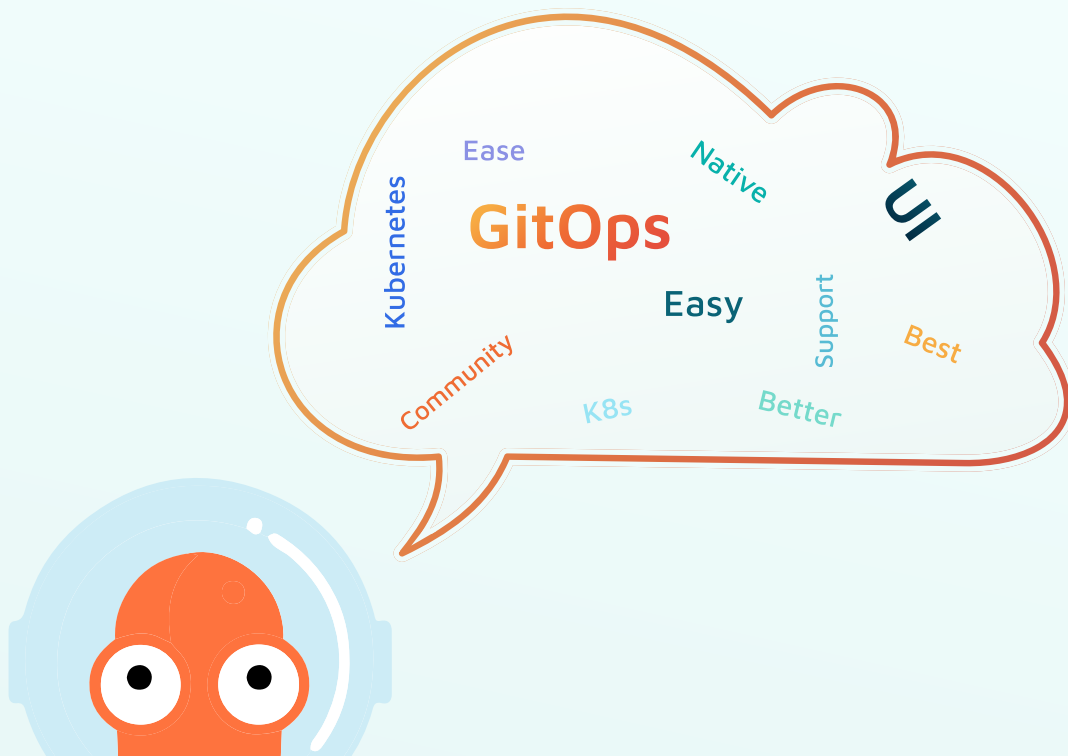

Users see Argo CD as the solution for GitOps and are attracted to the user interface, features providing ease of use, support for cloud-native technologies, and the Argo community.

Conclusions

We already knew Argo adoption is exploding compared to alternative solutions. What new have we learned?

- Organizations are deploying Argo CD at scale. We estimate that respondents manage an average of 380 applications.

- Scale is sharply enhanced by use of enablers like Argo CD ApplicationSet and Argo CD Vault Plugin. Users using one or both of these tools average twice as many applications managed as those who do not.

- Users are gaining real production experience with Argo CD. More than 40% of respondents have been in production for more than 12 months.

- Users take advantage of a broad array of related and community-provided tools.

- User satisfaction with Argo CD is extremely high and is consistent across the range of job roles and previous experience.
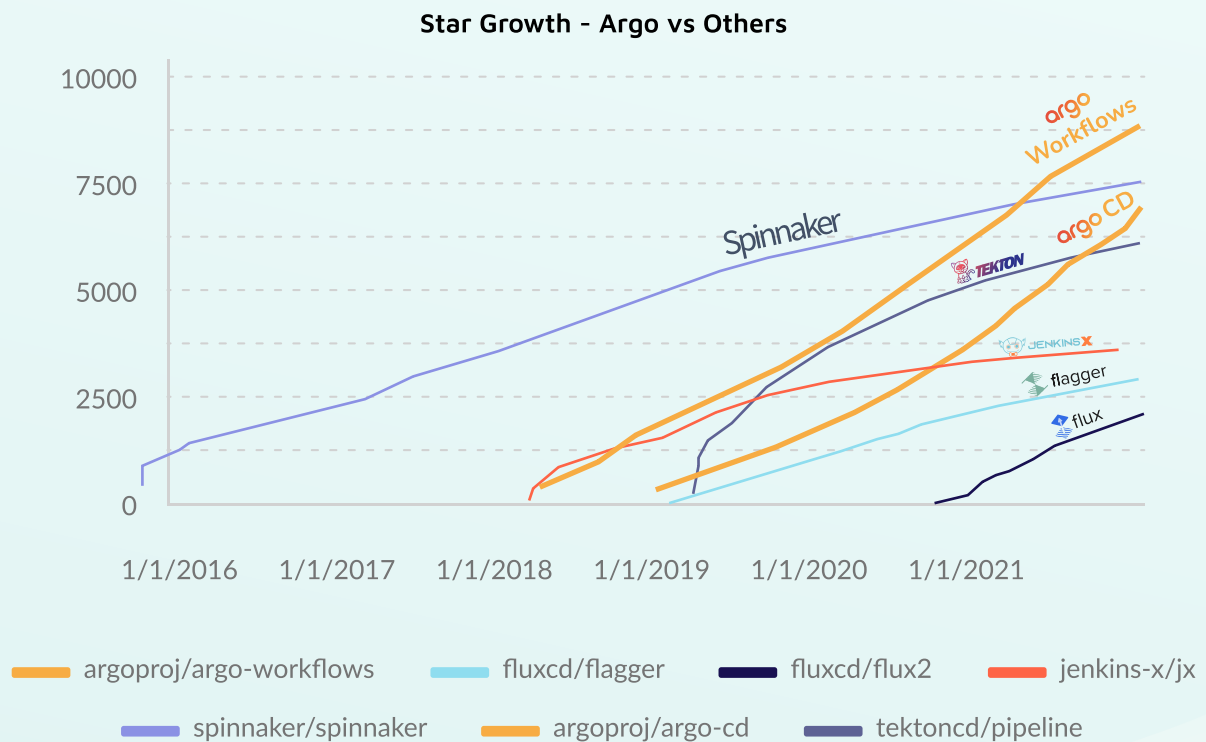
The growth tells the story.

What's next?

Become GitOps certified with Argo CD: While the survey didn't cover in depth where skills are lacking on teams, we've observed a very high-demand from users to know the best practices for GitOps using Argo CD. To help train your team, we suggest Codefresh's GitOps Certification, it's currently free and covers everything from directory structure and secrets management to declarative progressive delivery. The training includes a Kubernetes cluster to run everything from the browser so your team can focus on the best practices. Get GitOps certified at **https://codefresh.io/argo/get-certified**

Learn more about GitOps in the enterprise: Visit Codefresh.io to learn why Codefresh is the most trusted GitOps software delivery platform.