SHADOWSOFT

2: Application Framework

WHY THIS FRAMEWORK IS IMPORTANT

There are so many flavors of applications that it is important to identify what different applications have in common and then define what makes them unique.

This framework focuses on identifying "low risk, low lift" applications to migrate to Kubernetes. This lets you tweak any issues you might discover regarding CPU consumption, storage, and other factors.

EXERCISE


1.5 Hours


Medium Difficulty


Head of Operations
Head of Development

Are developers abstracted from Kubernetes leaving deployment and environment knowledge to operations?

- ☐ Yes
- ☐ No

Types of workloads in Kubernetes?

- ☐ Web Applications
- ☐ Web Services
- ☐ Databases
- ☐ Data Science
- ☐ Batch Jobs
- ☐ Other: _____

What programming languages?

- ☐ Go
- ☐ Java
- ☐ Python
- ☐ C/C++
- ☐ Rust
- ☐ Other: _____

Do these applications/services require persistent storage?

- ☐ Yes
- ☐ No

Do these applications/services require distributed caching?

- [ ] Yes
- [ ] No

Are applications deployed consistently across all environments?

- [ ] Yes
- [ ] No

Are any hosted workloads supporting production environments?

- [ ] Yes
- [ ] No

Length of time these workloads have been deployed in Kubernetes?

- [ ] Less than 1 month
- [ ] 3 - 6 months
- [ ] 6 - 12 months
- [ ] 12+ months

Are applications being load tested?

- [ ] Yes
- [ ] No

Are requests and limits implemented?

- [ ] Yes
- [ ] No

Are application workloads being tested?

- [ ] Yes
- [ ] No

Are standalone buses/queues intended to be used by these applications/services?

- [ ] Yes
- [ ] No

Are messaging brokers deployed within clusters?

- [ ] Yes
- [ ] No

Type of messaging brokers?

- ☐ ActiveMQ
- ☐ RabbitMQ
- ☐ Kafka
- ☐ KubeMQ
- ☐ Redis
- ☐ Other: _____

Are databases being deployed within these clusters?

- ☐ Yes
- ☐ No

Types:

- ☐ Relational
- ☐ Document
- ☐ Time series
- ☐ Columnar
- ☐ Object oriented
- ☐ Graph
- ☐ Key-value
- ☐ Cloud

How many applications will be moved to Kubernetes?

- ☐ 0-10
- ☐ 11-50
- ☐ 51-100
- ☐ 100+

How are applications being migrated to Kubernetes?

- ☐ Replatform
- ☐ Refactor
- ☐ Both

NEXT STEPS

Count the number of times you answered "Yes" and compare it to the number of times you answered "No." This will give you a sense of the level of effort migration will take over time.

Now, look at your "Yes" answers. Select 6-7 applications that seem ready to migrate today. Then, check with the application owner to see what changes they might want to make because now is the ideal time to rebuild or refactor an application.