

# cdCon 2022

**Building DevOps metrics for your choice of CD tools through  
CDEvents**

**A long long time ago**

**A long long time...**

# **cdCon 2022**

**Building DevOps metrics for your choice of CD tools through  
CDEvents**

**Andrea Frittoli, IBM. Erik Sternerson, doWhile**

# **In this talk**

- **Learn About CDEvents**
- **Learn About DevOps Metrics**
- **How do they fit together**

**CDEvents**

**Conceptual: Common language**

# **Wider effort**

- CDF SIG Interoperability**
- CDF SIG Events**



**CDEvents**

# Concrete: Spec and SDKs

# Specification



# Specification



Specification

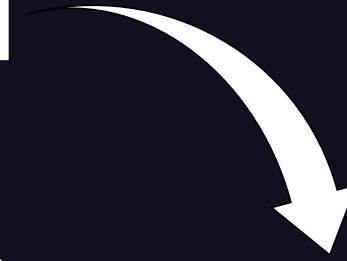


SDKs

## Specification



```
// Create an event.  
event, _ := cde.CreateServiceEvent(  
    cde.ServiceDeployedEventV1,  
    serviceEnvId,  
    serviceName,  
    serviceVersion,  
    serviceData)  
  
// Set a source.  
event.SetSource(source)  
  
// Set a target.  
ctx := cloudevents.ContextWithTarget(  
    context.Background(), CDE_SINK)
```



SDKs

Specification



Integrations  
&  
Proof-of-Concepts



SDKs

# **Wider effort (again)**

- **CDEvents team**
- **Project communities**



**What we want to achieve through  
CDEvents**

# Interoperability

**Observability**

# DevOps Metrics

# DORA Metrics

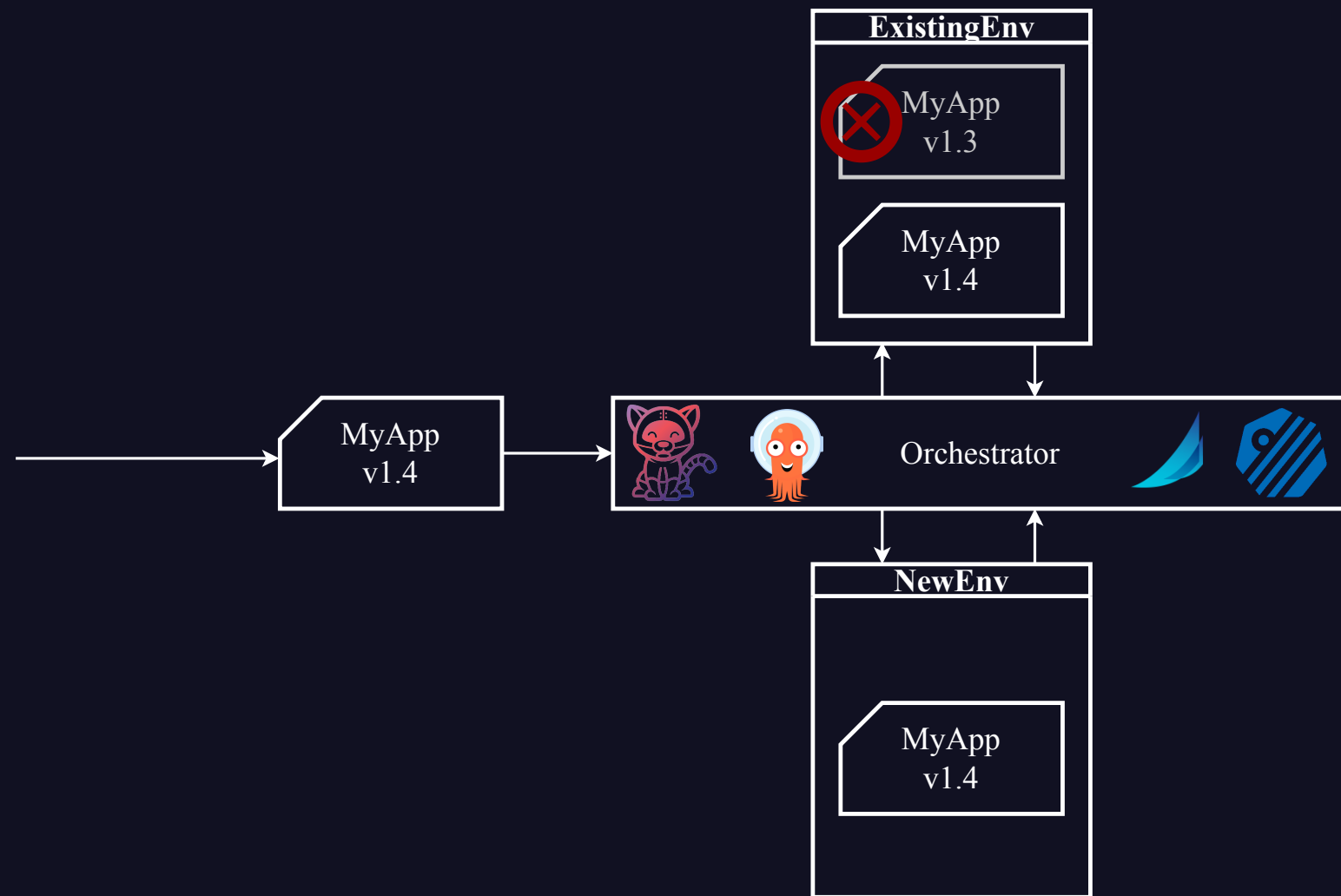
- Deployment Frequency
- Lead Time for Changes
- Change Failure Rate
- Time to Restore Service

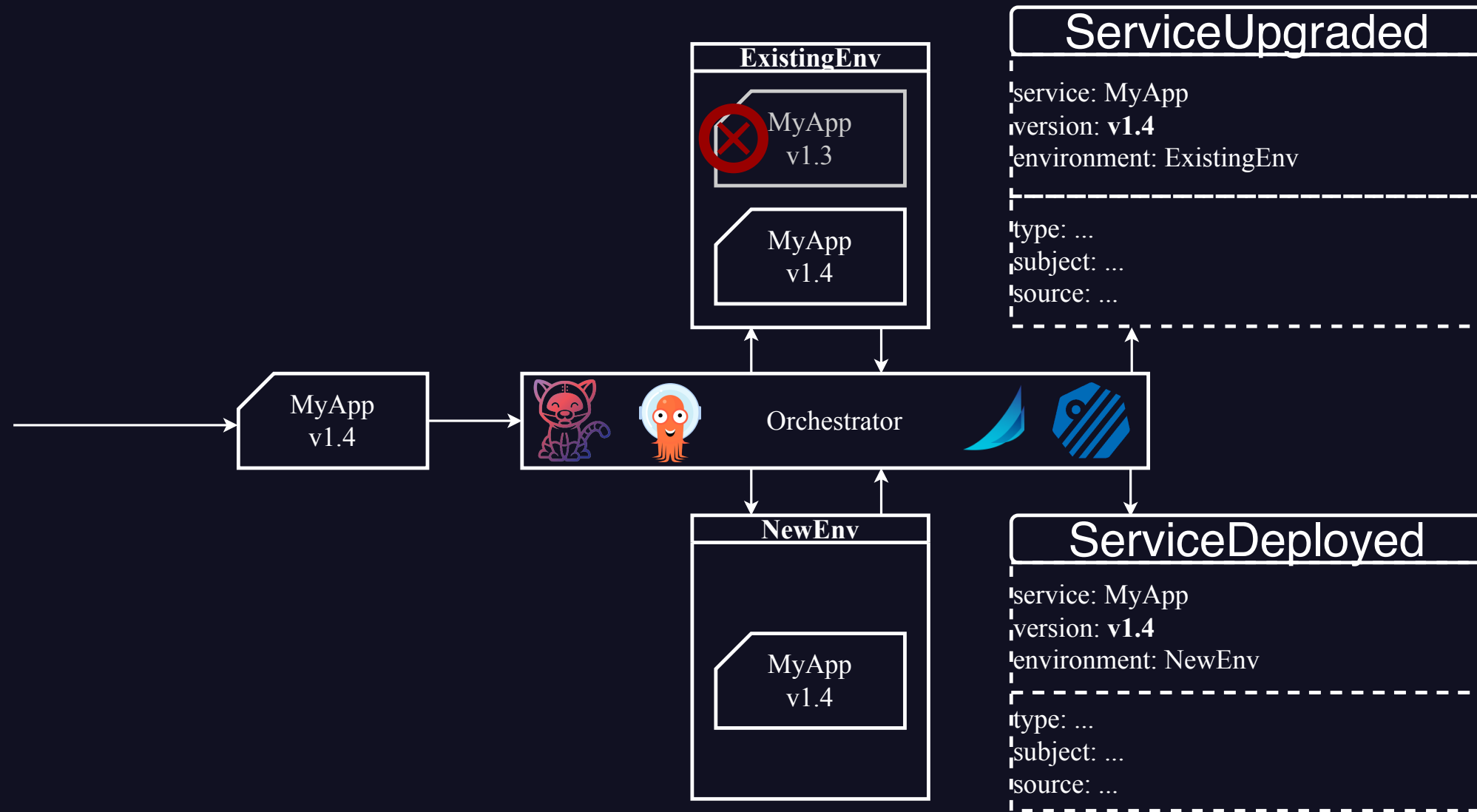
# Metrics through CDEvents

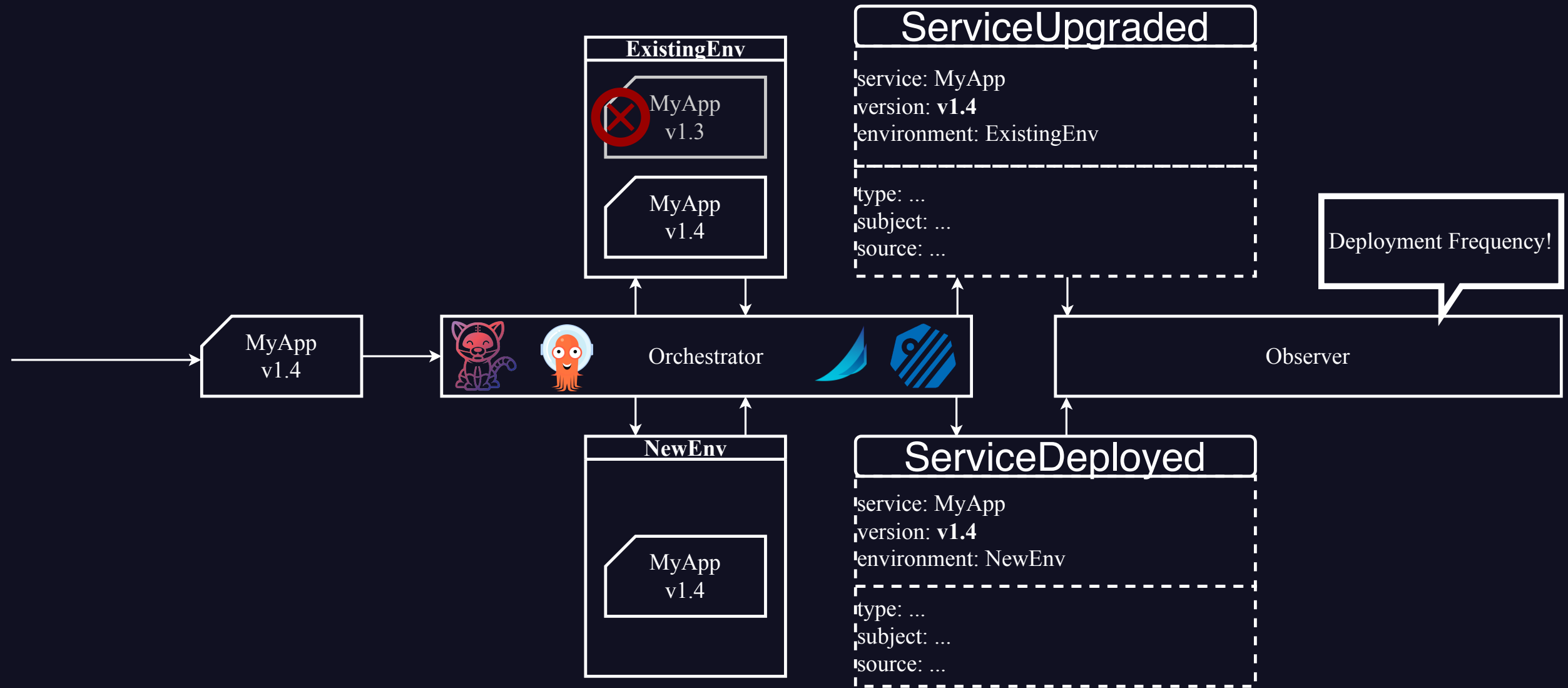
# Deployment Frequency





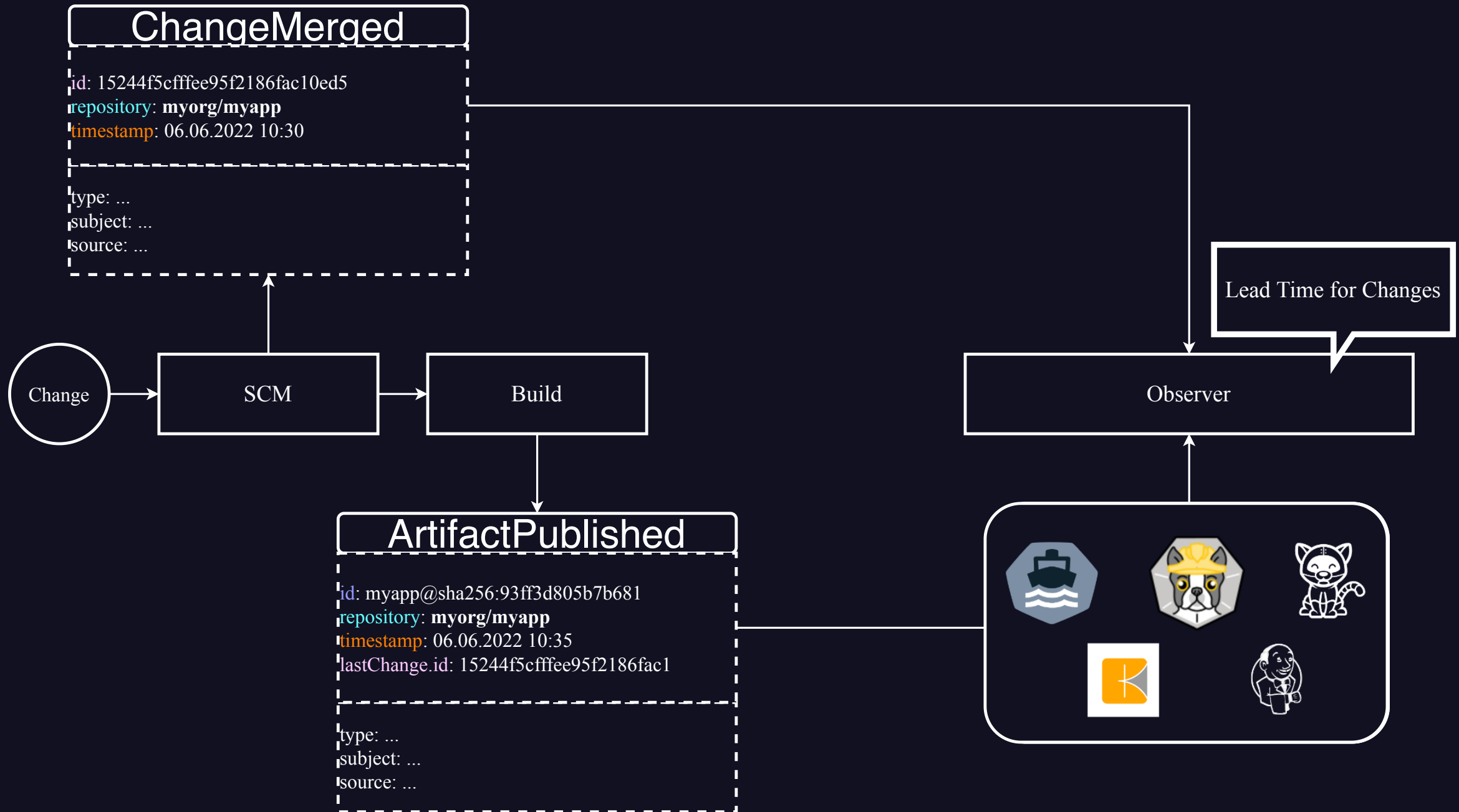


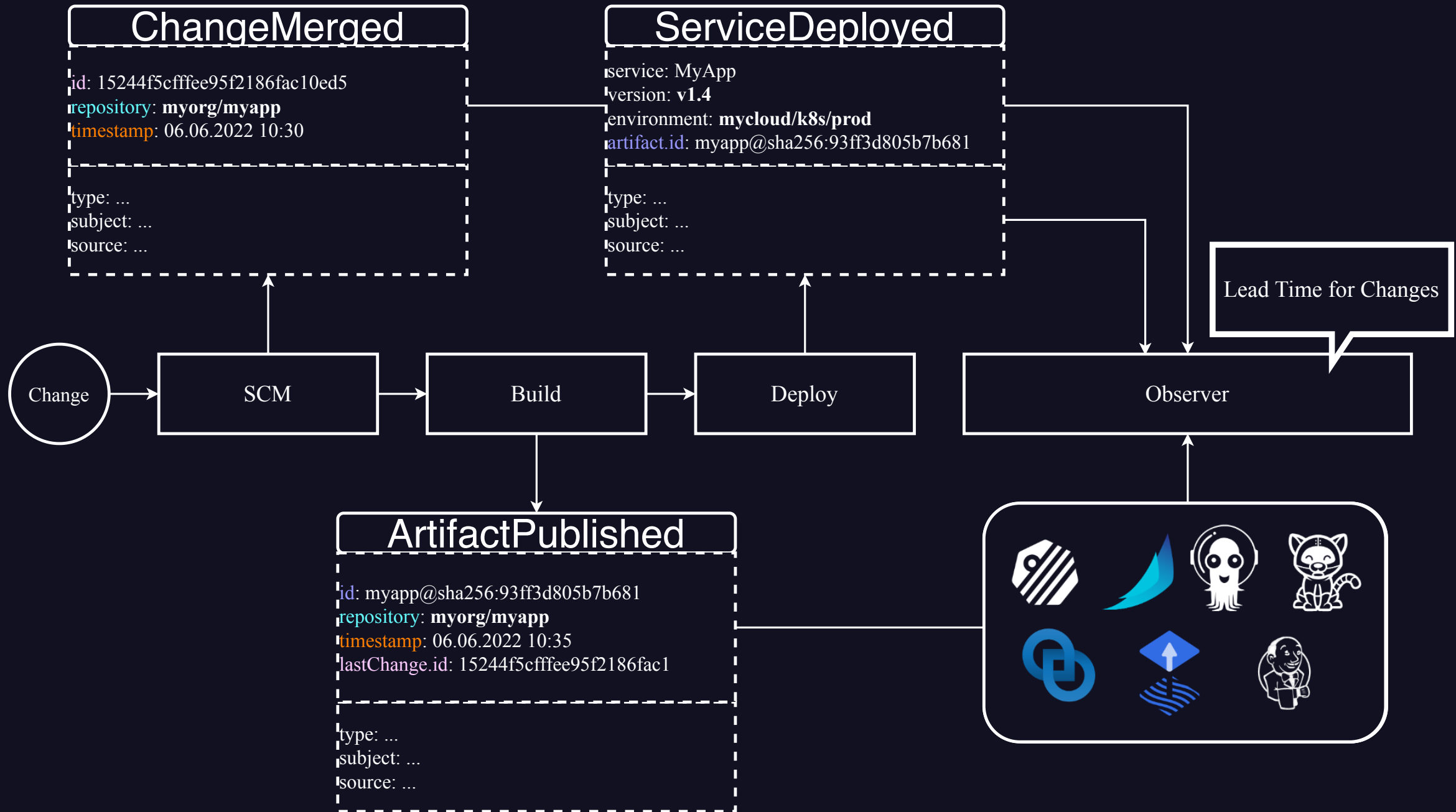




# Lead Time for Changes



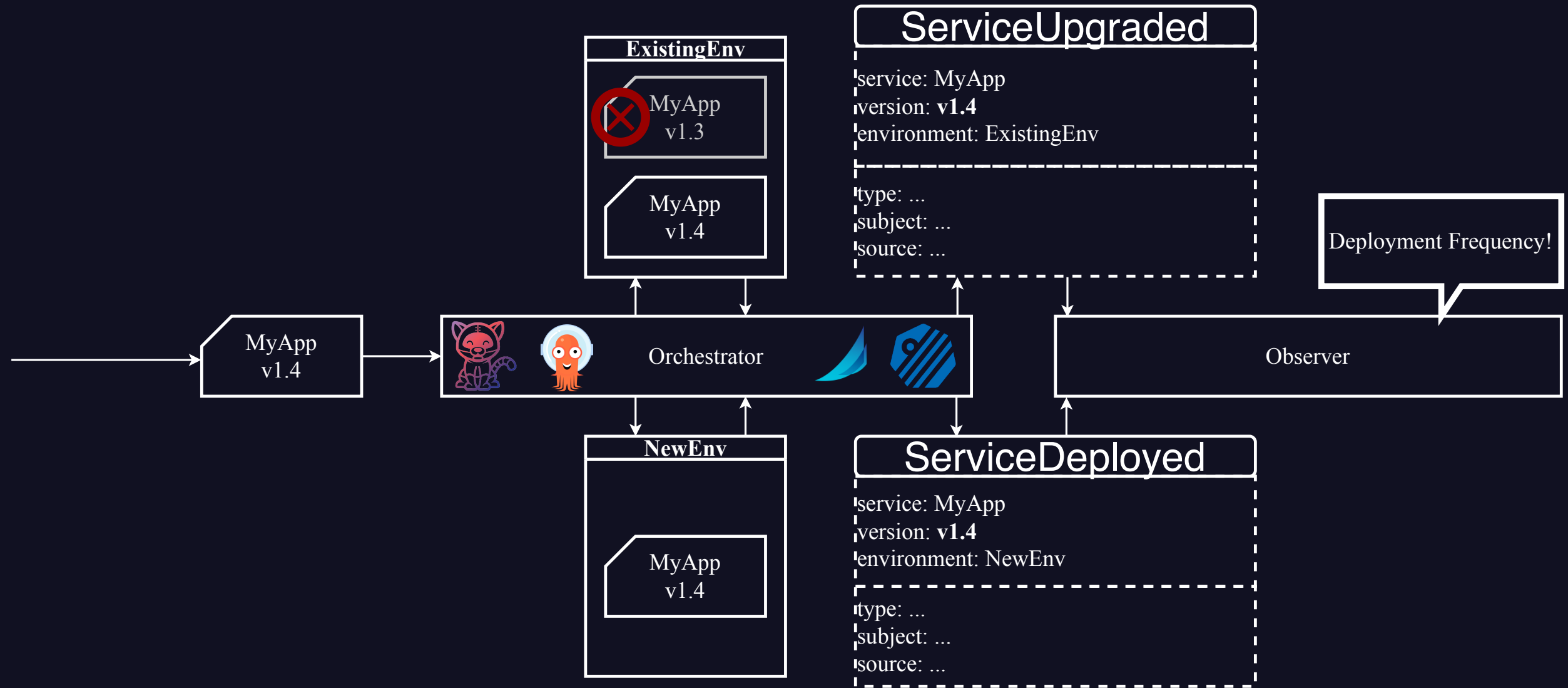




**Change Failure Rate**



**# Deployments / # Incidents**



# Incidents

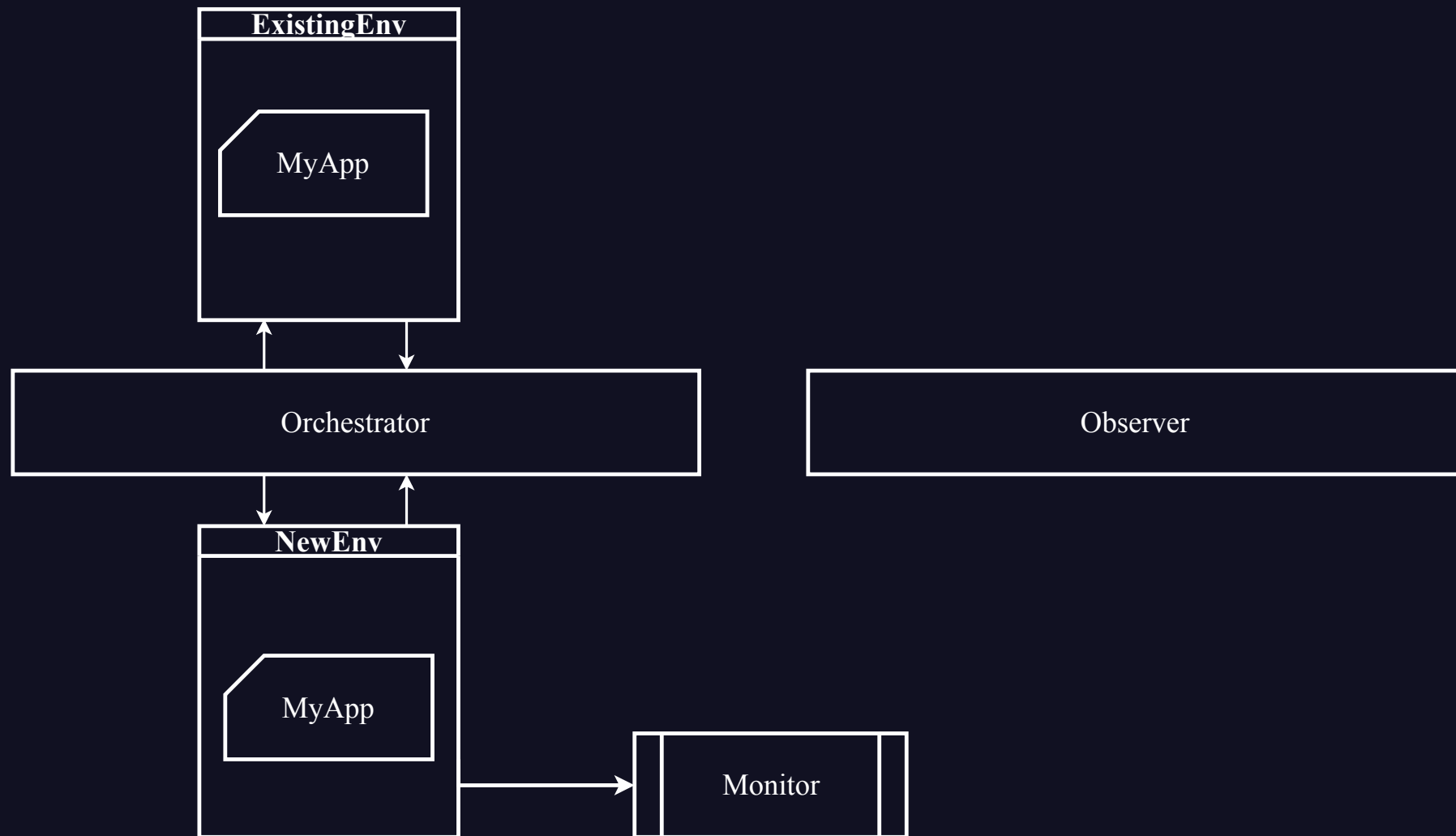
# What can cause an incident?

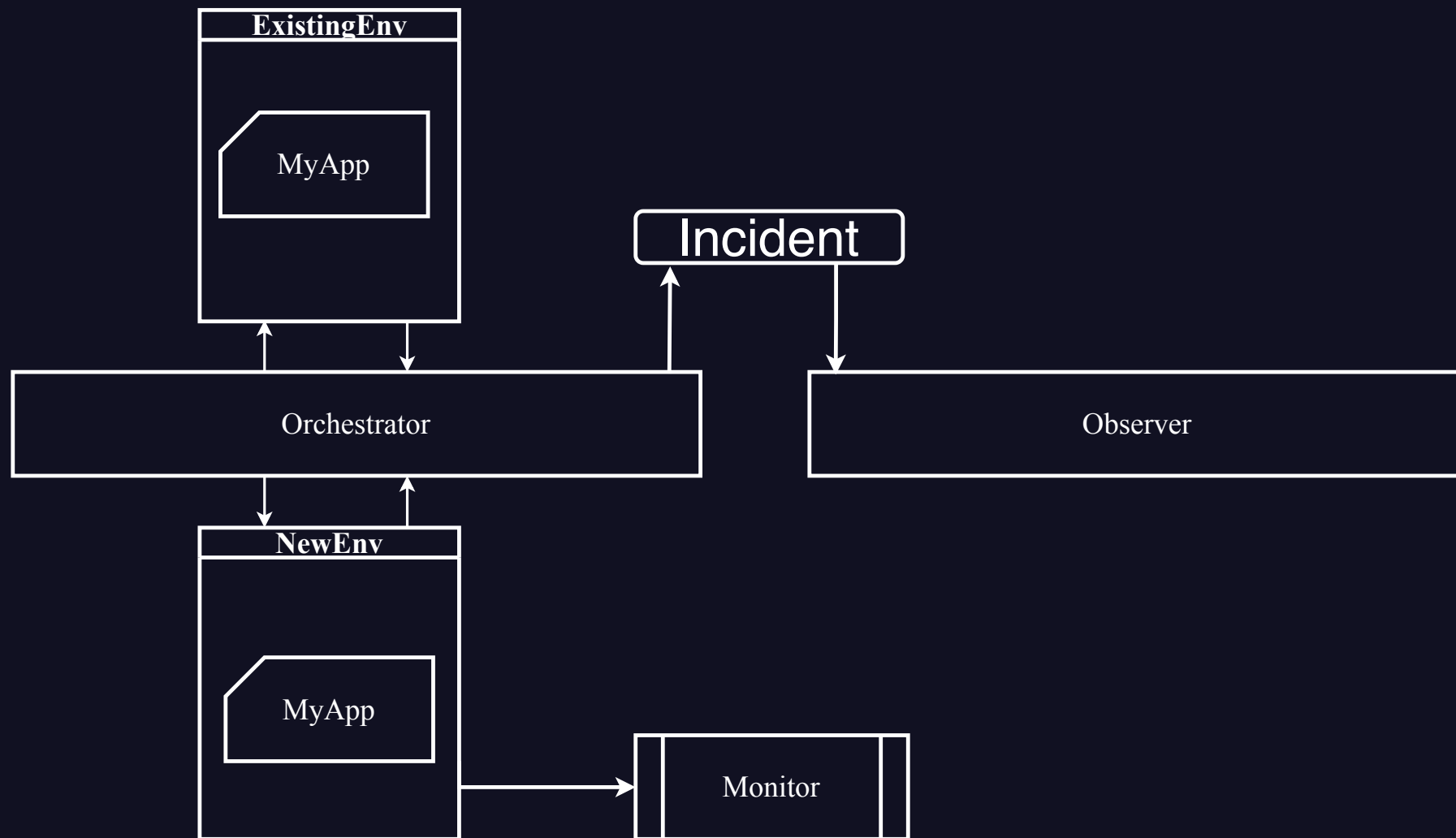
- **Application error (bug!)**
- **Configuration error**
- **Environment error**
- ...

# Who can discover an incident?

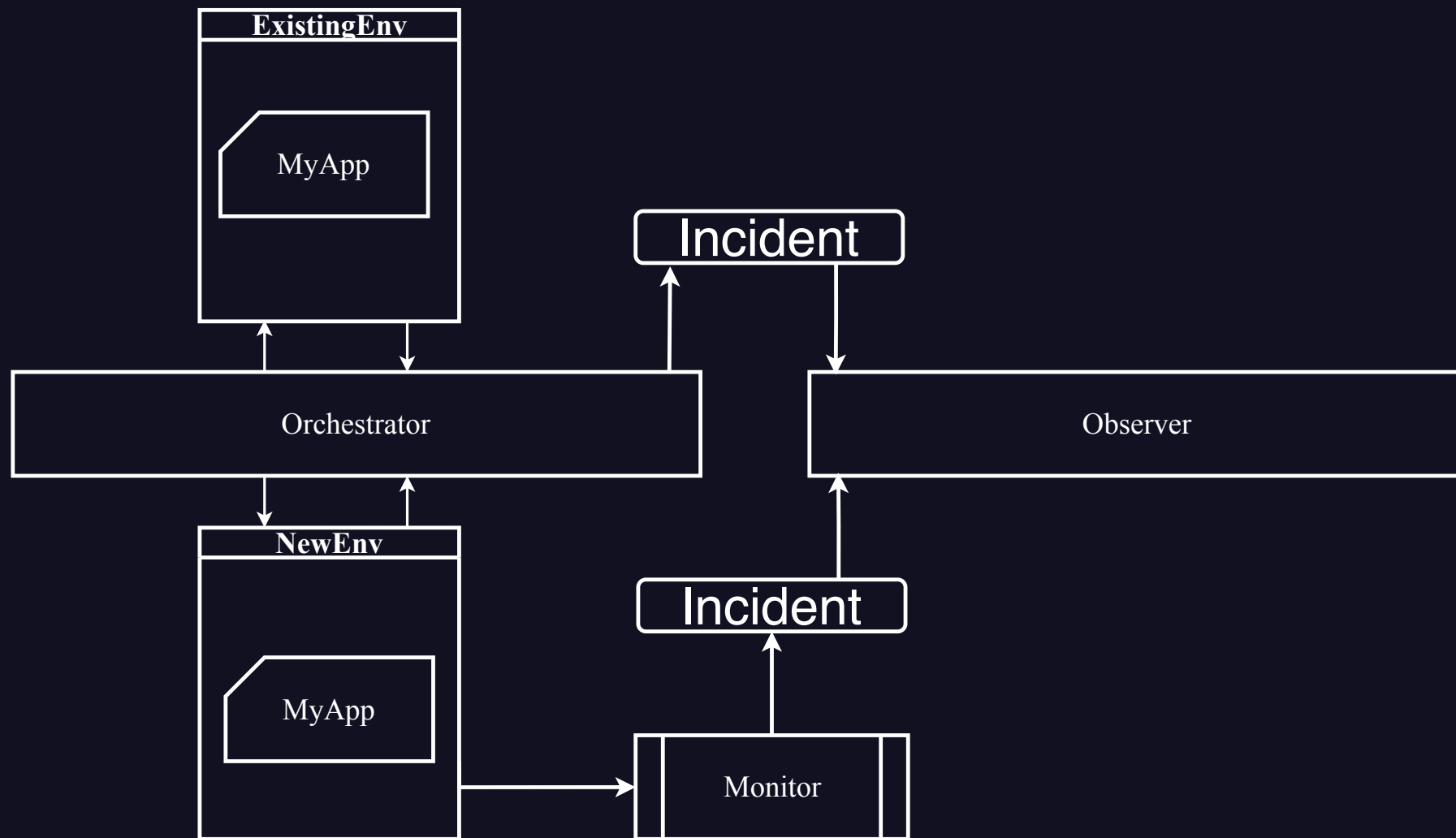
- **Orchestrator**
- **Monitoring system**
- **Application itself**
- **Users / DevOps team**

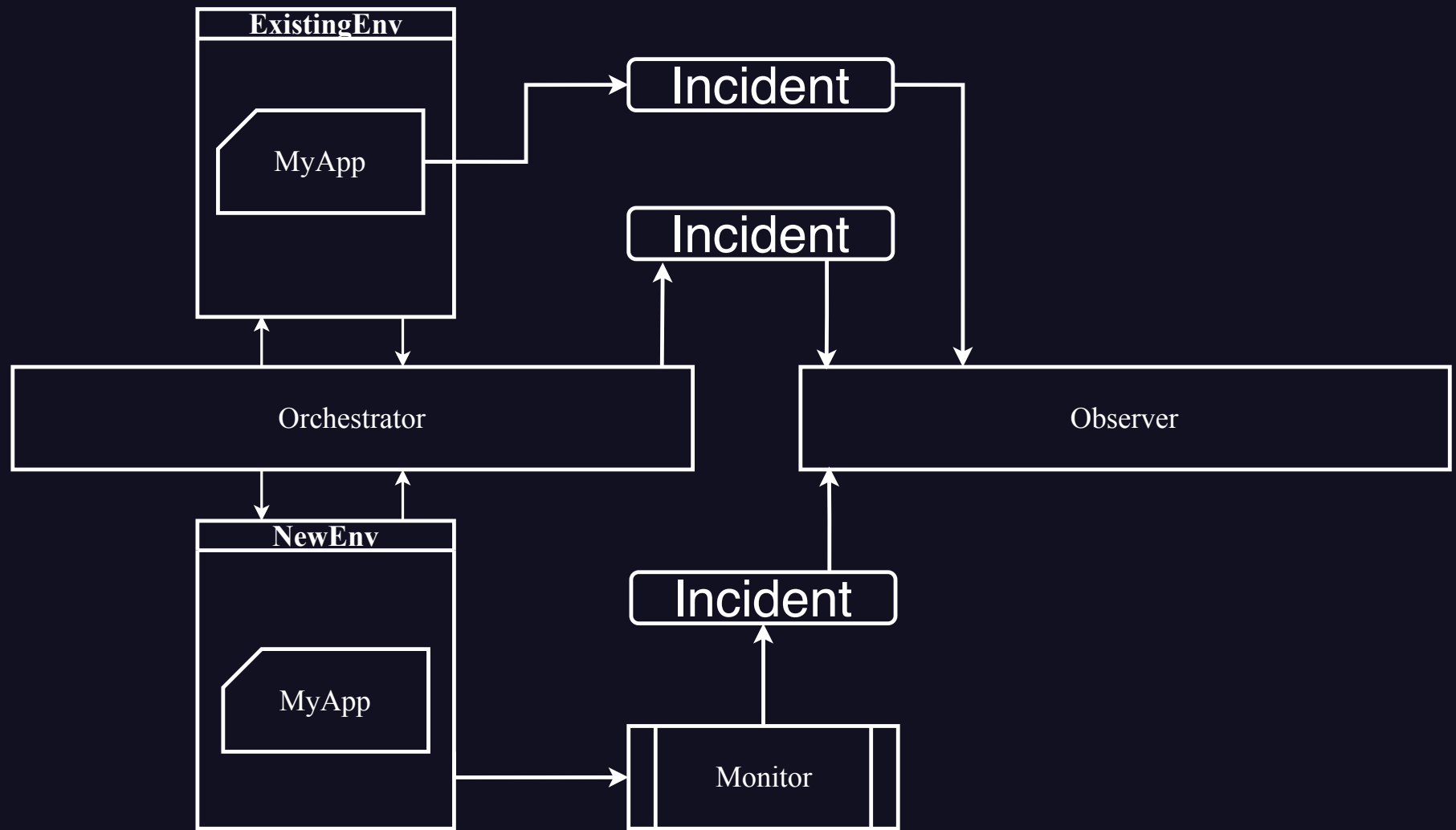
**Send an Incident event!**

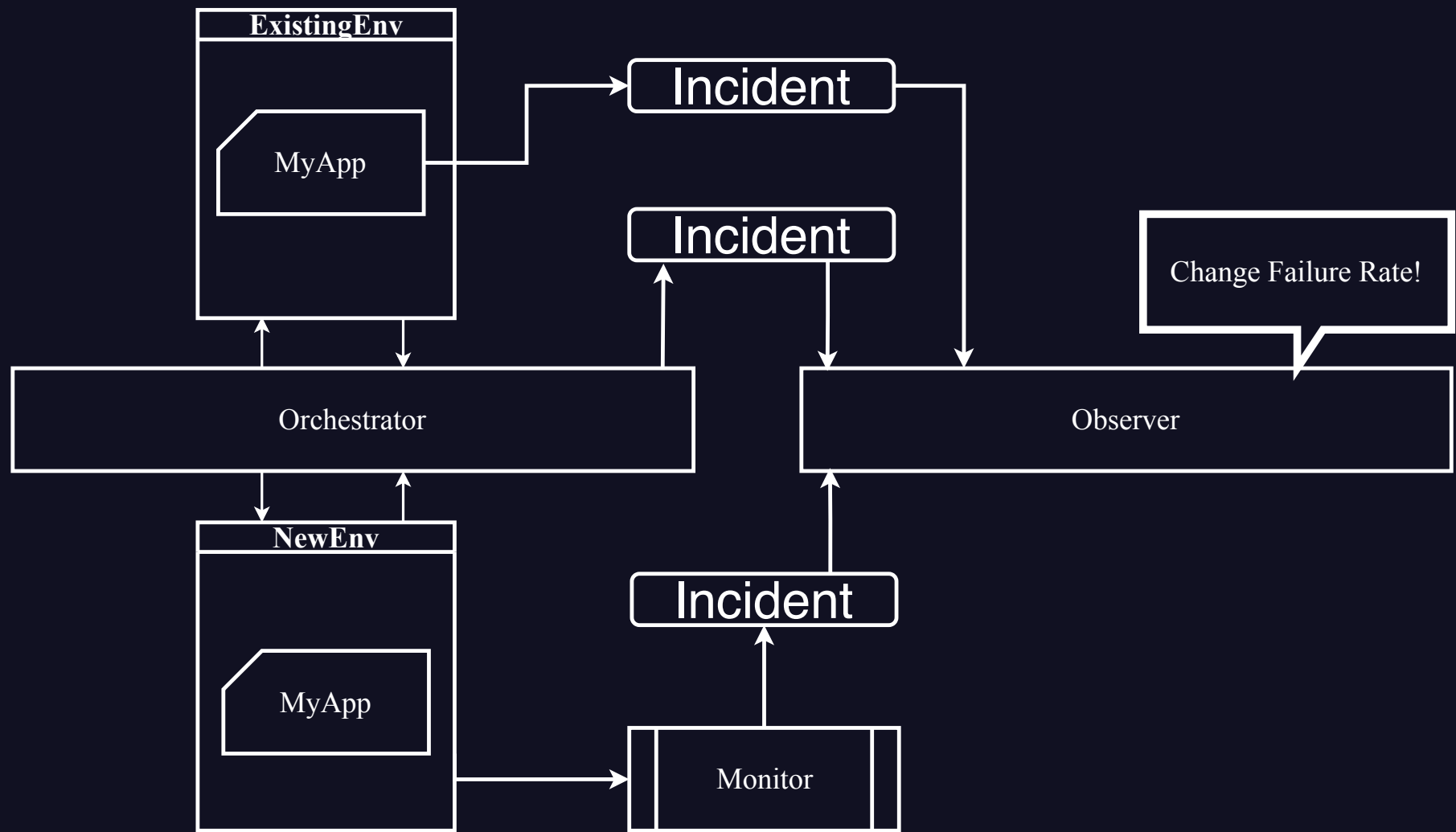








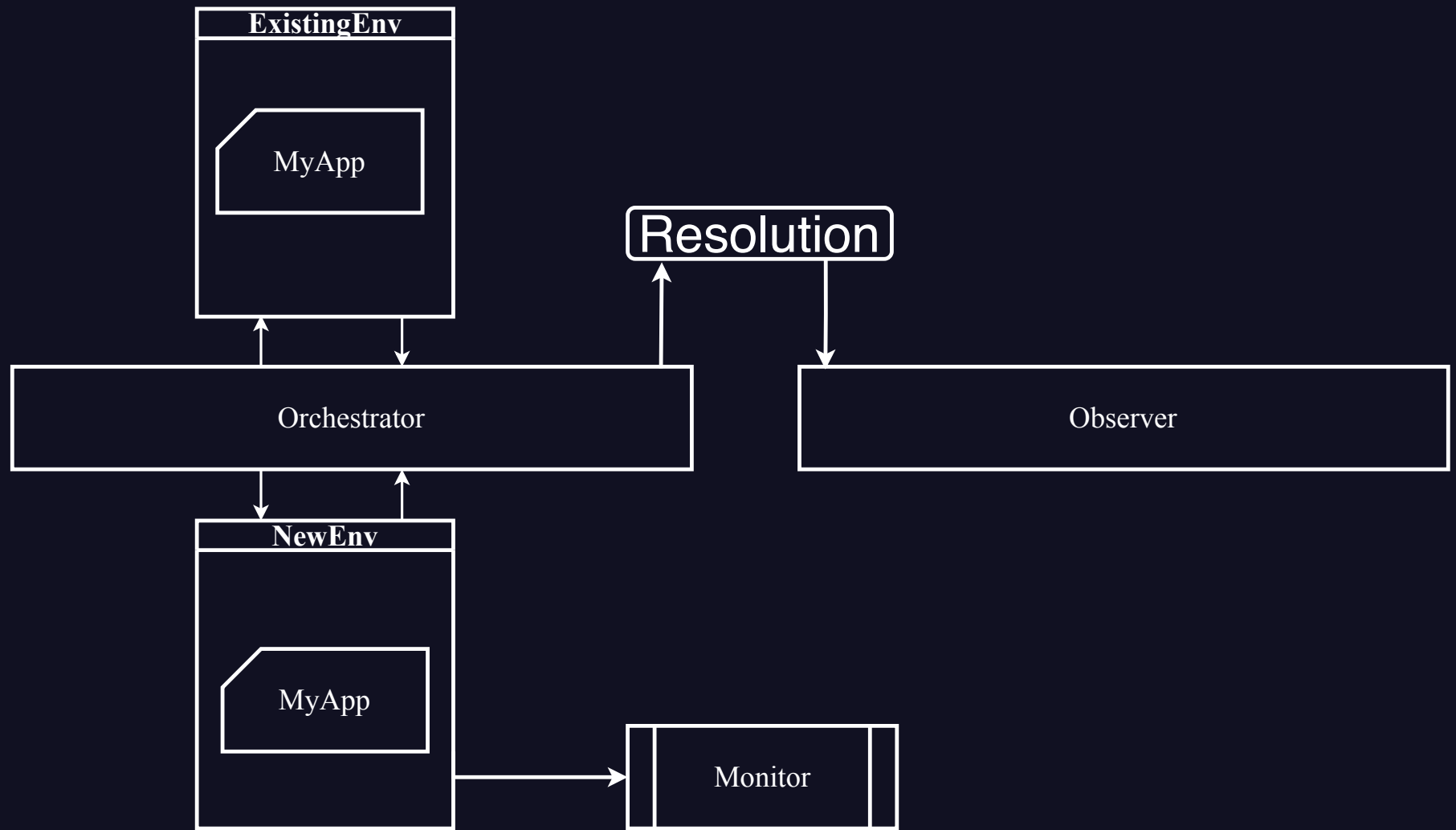


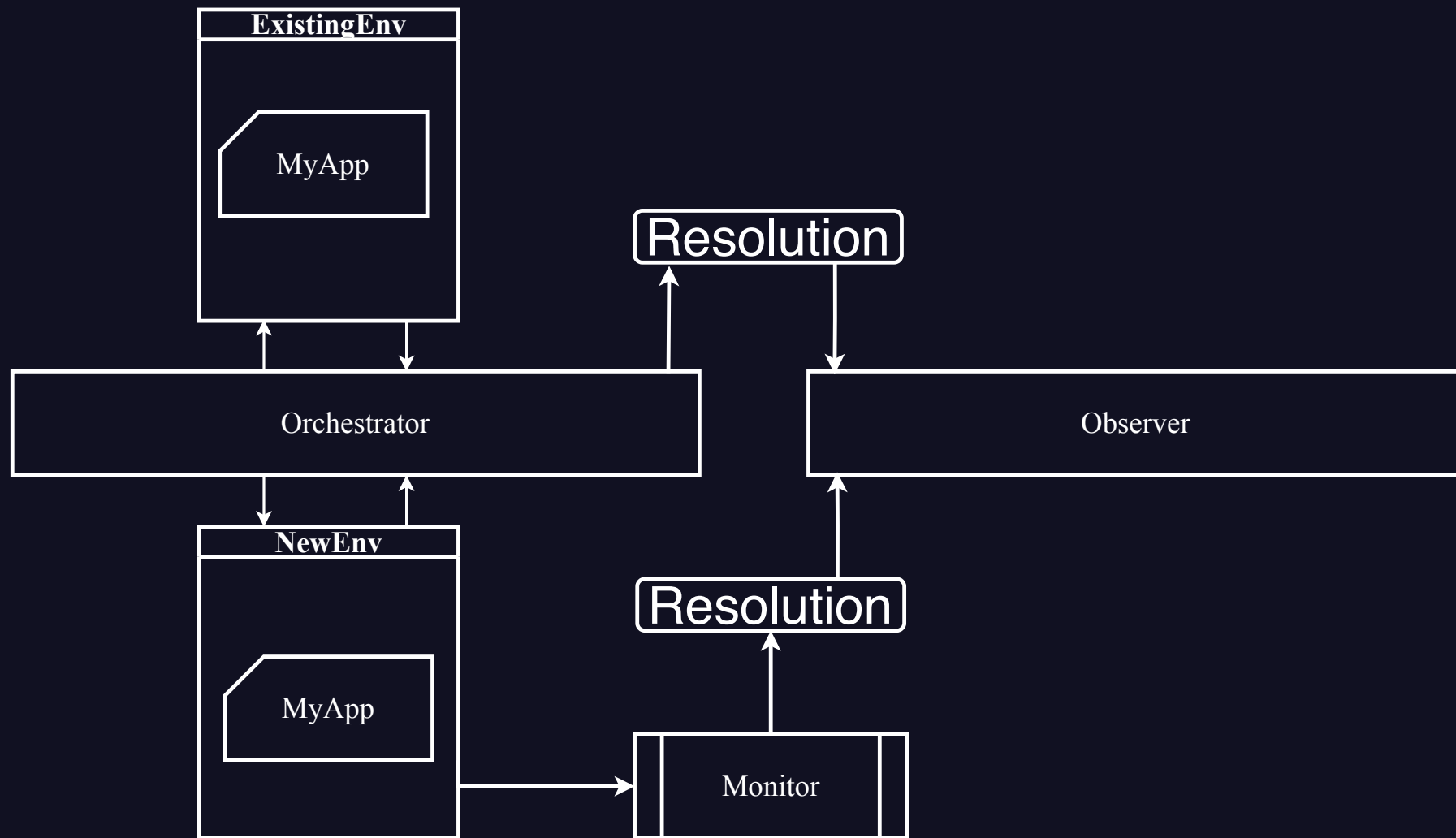


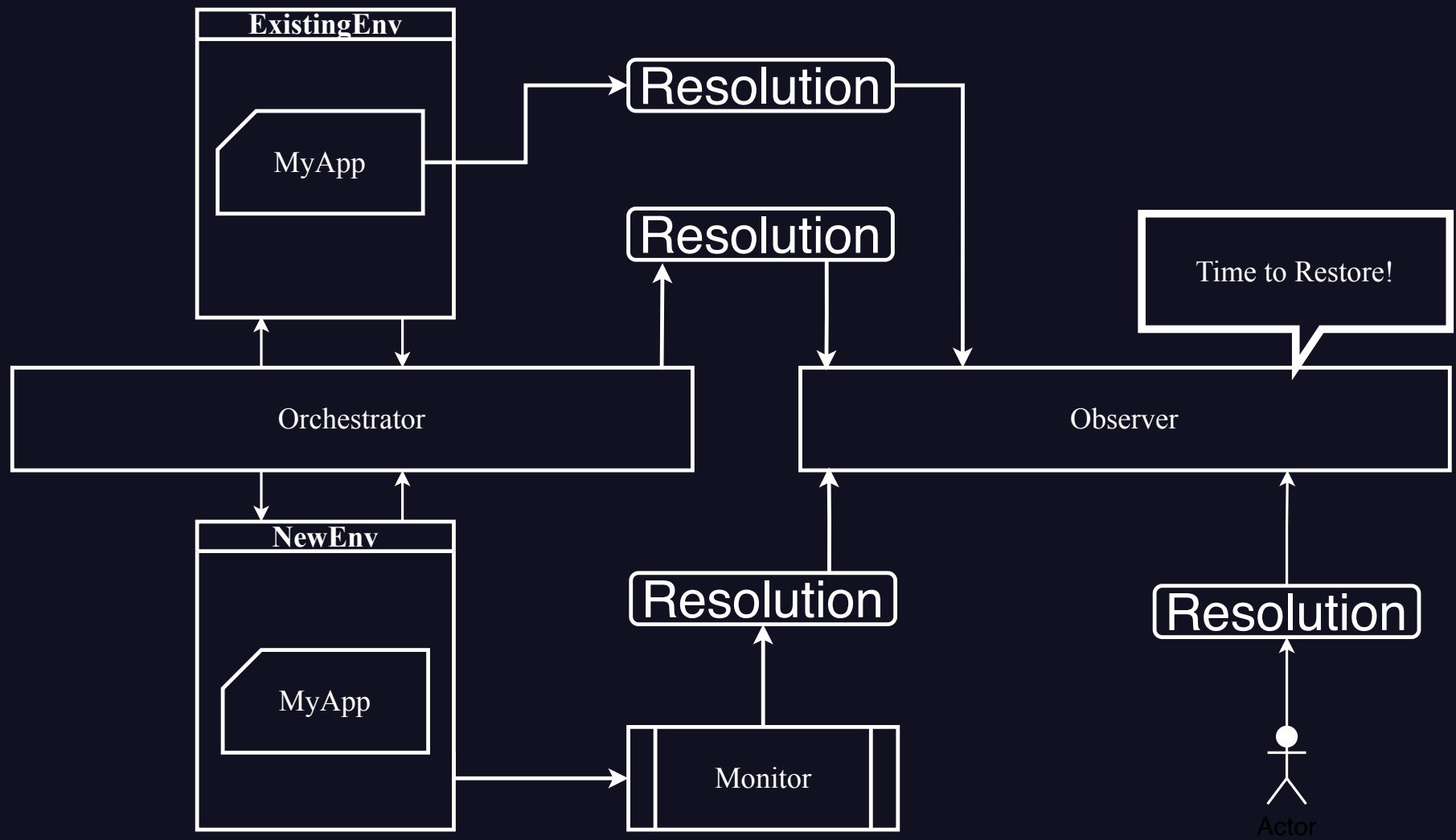
**Time to Restore Service**

# **What can restore the service?**

- A rollback or deployment of a newer version**
- Configuration change (e.g. scaling)**
- A change to an external dependency**
- Who generates the events?**









# **Key takeaways**

**Metrics are tricky**

**A common language helps!**

**A call to action**

**cdevents.dev**

**Thank you!**

# Questions?

**Andrea Frittoli, IBM. Erik Sternerson, doWhile**