

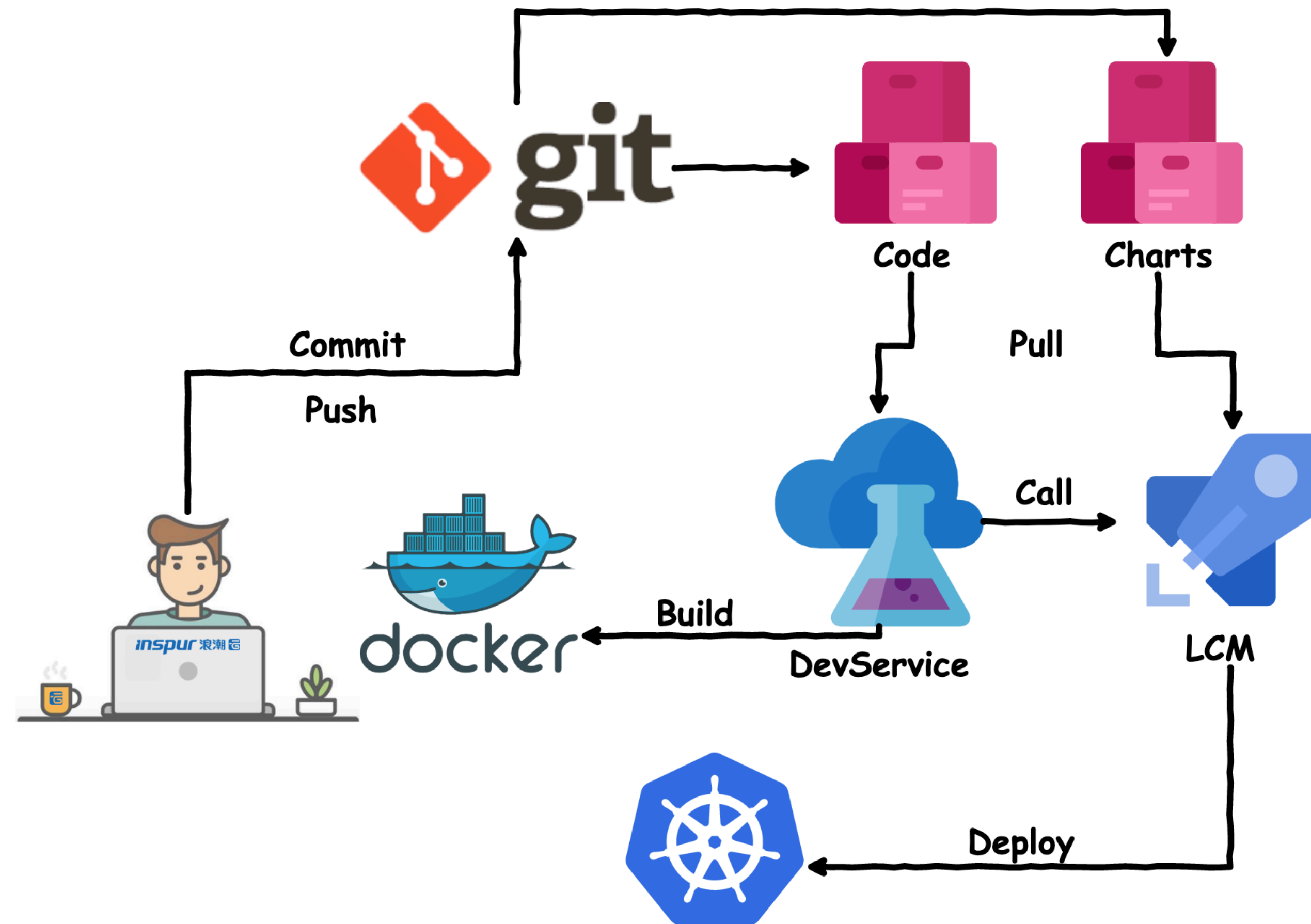
# GitOps

**INSPUR's 400+ Cloud Native Applications GitOps Practice**

# GitOps

## Git significance

- GitOps is a continuous delivery method. Its core idea is to store the declarative infrastructure and applications of the application system in the Git repository.
- By applying GitOps best practices, the infrastructure and application code of the application system have "truth sources"



# Declarative container choreography

## Helm Chats Manage By Git

```
67 containers:
68 - image: {{ .Values.global.registry }}/{{ .Values.image.cicdApi.name }}
69   imagePullPolicy: {{ .Values.image.pullPolicy }}
70   readinessProbe:
71     failureThreshold: 3
72     httpGet:
73       path: /cicd/core/v1/home
74       port: 8080
75       scheme: HTTP
76   initialDelaySeconds: 20
77   periodSeconds: 20
78   successThreshold: 1
79   timeoutSeconds: 1
80   livenessProbe:
81     failureThreshold: 3
82     httpGet:
83       path: /cicd/core/v1/home
84       port: 8080
85       scheme: HTTP
86   initialDelaySeconds: 120
87   periodSeconds: 60
88   successThreshold: 1
89   timeoutSeconds: 1
90   name: cicd-api
91   ports:
92   - containerPort: 8080
93     protocol: TCP
94   command: [
```

- As a cloud native tool, kubernetes can regard its "declarativeness" as "code". Declaration means that the configuration is composed of a set of facts rather than a set of instructions.
- By using git library, it is easier to deploy the application to kubernetes and roll back the version. More importantly, when a disaster occurs, the infrastructure of the cluster can be reliably and quickly recovered from the Git library

# Basic principles of GitOps

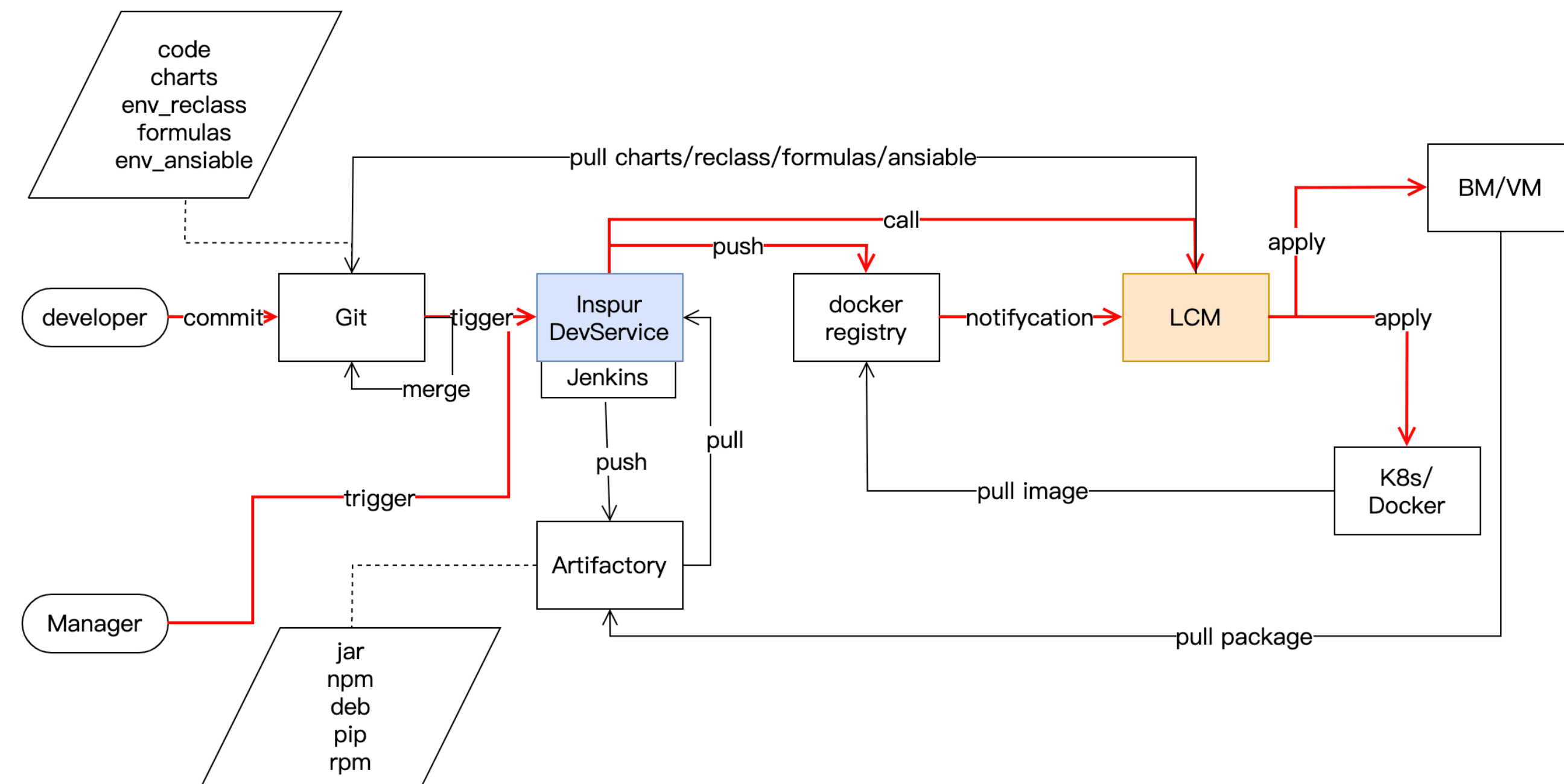
## Code of conduct

- Anything that can be described must be stored in the *Git* library
- `Kubectl` should not be used directly
- Calling the Kubernetes *API* interface should follow Operator mode

# LCM

## Life Cycle Manager

- Inspur Cloud, based on GitOps concepts, has developed a deployment component called LCM to bond the connection between CI and CD in the pipeline
- Code-based facilities enable automated deployment, automated updates, automated upgrades, and automated rollback of cloud environments and upper applications through LCM workflows.

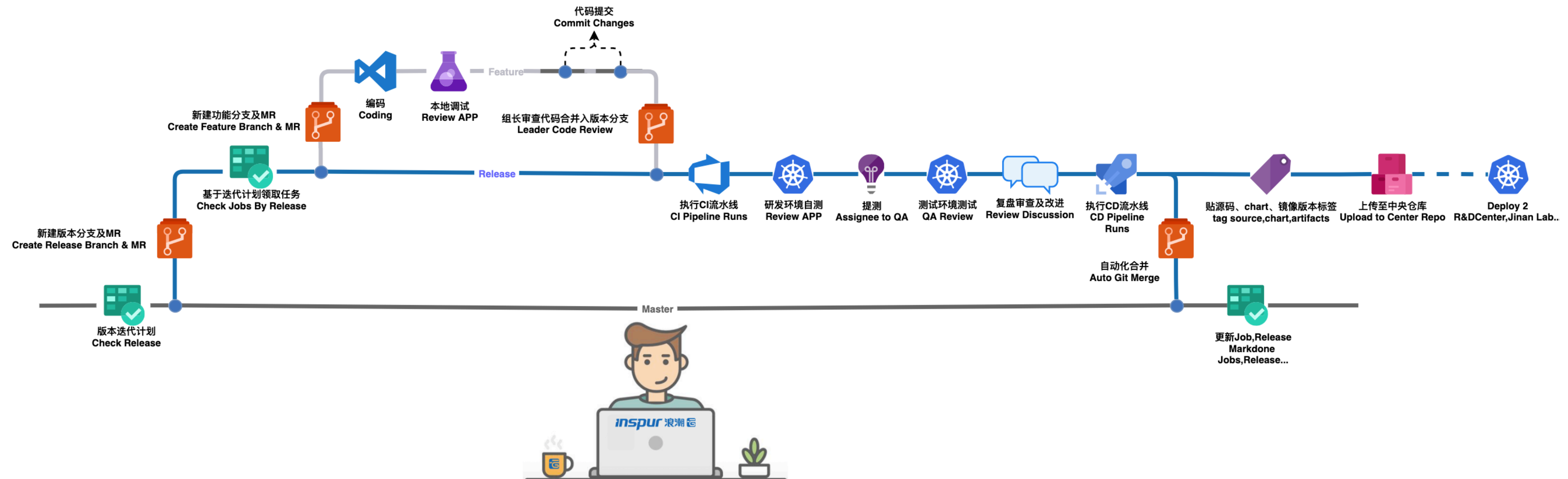


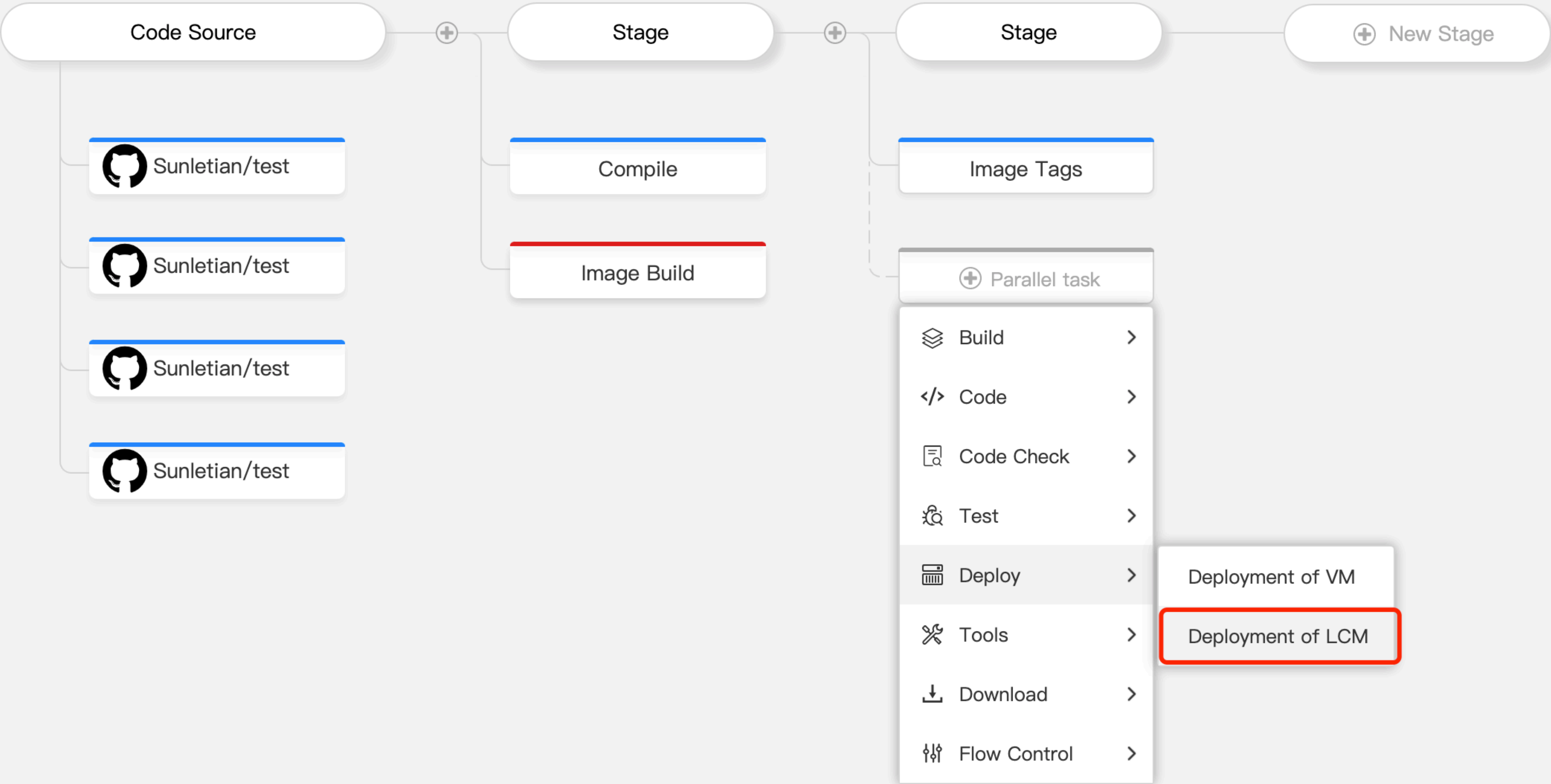


# Pipeline

## Inspur Cloud DevService

- Using Deploy Operator inside the cluster, cluster credentials are not exposed outside the production environment.
- Once Deploy Operator is installed in a cluster and connected to the Git repository, any changes in the online environment will be made through Git pull requests with full rollback and Git-provided convenient audit logs

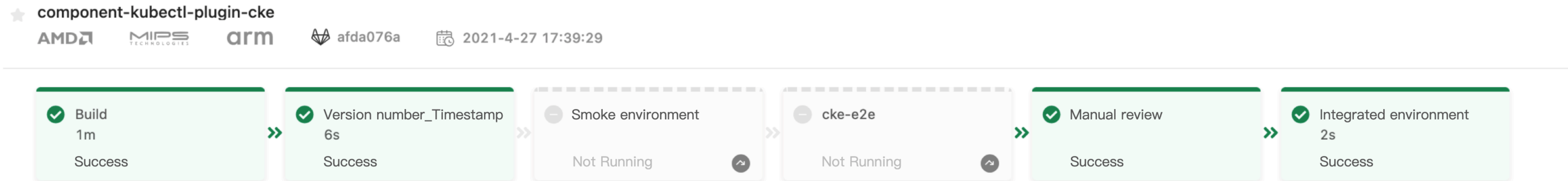




# GitOps Practice

## 400+ Cloud Native Applications GitOps Practice

- With the deployment of LCM, Inspur Cloud enables continuous integration and deployment of over 400 micro-service applications. Ensure average daily production environment pushed more than 2.5 times





# Celebrate the 2nd Anniversary of CDF

## As CNCF Gold Member



- Inspur has been paying close attention to the development of CDF, actively participating in the community contribution of CDF, and hoping to become a CDF incubation project one day.
- “By enhancing our focus on cloud, data and AI driven applications, we’re working to create more dynamic platforms based on ecosystems between customers, businesses and governments, where data can be shared to benefit all,” said Max Zhang, vice president of Inspur. “Our increased engagement with CNCF will accelerate our work with the global community to further collaboration around data, and work with developers for rapid innovation”.

无 处 不 在 的 计 算

*inspur*

浪潮云官方微信



浪潮云注册



*inspur* 浪潮云

官方网址: [cloud.inspur.com](http://cloud.inspur.com)  
售前热线: 400-607-6657  
售后热线: 400-619-2176

浪潮云

COMPUTING  
EVERYWHERE

[cloud.inspur.com](http://cloud.inspur.com)