kloia

DevOps as a Service

DevOps Trends & Challenges

Although current DevOps principles are set long time ago, the solution to comply with those principles and practices are still evolving. This changing heterogeneous environment requires time and focus in order to try our the new tools and also distinguishing the hype. This creates distraction, especially for the growing startups away from their focus on their business goals. Even if the DevOps is not their core-business, they have to invest on this as time. We believe that startups main challenge is to survive in competitive business environment and DevOps should not be an obstacle for them to grow.

kloia solution: DevOps-as-a-Service

Organizations can improve their efficiency by automating the deployment pipeline and activating the DevOps feedback loop. This is an effort which needs a specific focus and this focus usually does not happen during the early startup stage. When the time comes and the startup begins growing, the processes which have not been automated or have been given effort not by DevOps/SRE but rather by Development Team, may become an obstacle for the startup to grow. At this point the initial intention is to hire a Automation Engineer/DevOps Engineer/SRE (Site Reliability Engineer) which results with a turnover after several months because the automation needed does not fill the fulltime of an engineer. DevOps Automation and development, upon to our rule-of-thumb, becomes a full-time activity usually after 3 Scrum/Kanban Software Development Teams. When the time comes and startup needs SLA on services, this is becoming closer to SRE duties and in order to give 7/24 SLA, the startup needs to hire more than one engineer to comply with the SLA.

Kloia assigns engineer(s) to your Development Team, collaborating with them for the purpose of automation of the deployment pipeline and introducing various practices to active the DevOps feedback loop. Based on your goals, kloia engineers apply the latest practices in DevOps automation including Docker, Kubernetes, Terraform, DevSecOps, Monitoring, Deployment Pipeline considering your constraints. All the tasks are done in “Everything-as-code” manner, which means all automation code is committed to your Code Repository aside with your application code and here is no “hidden” or undocumented activity.

The steps for the services are:

1- **Onboarding:** Awareness trainings followed by auditing of your current state and defining your business goals

2- **Iteration Planning:** Defining the length of each iteration and committing to the tasks

3- **Transition:** Migration of your current environment to the new automated cluster

4- **SLA:** Enhancing the service levels, enriching the deployment pipeline and supporting the environmentt

Benefits

Managed Environment

Allowing developers to focus on the product rather than be preoccupied with operational issues.

Increased Availability

Gaining higher availability through a self-healing approach with auto-scaling and orchestration.

Zero-downtime Deployments:

Utilizing automated deployments, scaling, and monitoring tools to help your team deliver and manage content on time.

DevOps Feedback Loop

Enablement of the tools & practices in Monitoring, ChatOps, Alert Management for Continuous Improvement.

Key Solution Features

Infrastructure-as-code: kloia benefits from Terraform in order to keep the infrastructure as code for AWS, GCP or any private/public cloud which is supported. This helps to keep the infrastructure stable and consistent across the environments like Development, Staging and Production. All changes are historically a git commit which helps to keep track of what has been done. The side benefit of this approach of also to have a Disaster Recovery environment on demand, triggered by a simple command whenever needed.

Pipeline-as-code: Deployment pipeline includes CI(Continuous Integration) and CD(Continuous Delivery) steps. Kloia engineers work on o to enrich the deployment pipeline with proven practices including code-level checks, DevSecOps and various non-functional checks aside with your functional tests.

Containerization & Orchestration: As a part of the solution, kloia employs Kubernetes for the workloads except .NET v4. Docker is used a container defining the application dependencies and Kubernetes is used for orchestration. Based on the customers Cloud environment, the appropriate Kubernetes Service can be used like EKS for AWS or GKE for GCP. For on-premises, Rancher is preferred as an Kubernetes orchestration platform.

Monitoring: kloia employes the 3 dimensions of monitoring which are metrics, logs and distributed tracing. Although kloia already have preferred tools for those, the ones that are already exist on customer can also be worked on. For metrics kloia may introduce several dimensions like APM(Application Performance Monitoring), Kubernetes metrics, Operating System level metrics and also Public/Private Cloud level metrics. All of those are linked to a Alert Management system in order to manage the escalation for the SLAs.

How it works

kloia begins their solution process with an audit, onboarding session, and Statement of Work (SOW). The onboarding process lays out a timeline of all the solution elements, from which your team can select the proper elements for your environment. These elements are then taken through kloia's four step Transition.

For collaboration with the development team, kloia team creates a Shared #slack channel for instant communication. Beside, the tasks are managed on Jira Board upon to the preference.

Getting Started

You can submit an inquiry through https://daas.kloia.com and solution experts will reach you as soon as possible. Alternatively, you can send an email to daas@kloia.com. Signing up to this solution includes an initial audit of your current environment.

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