



# kubernetes

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*Kubernetes: Micro Services*

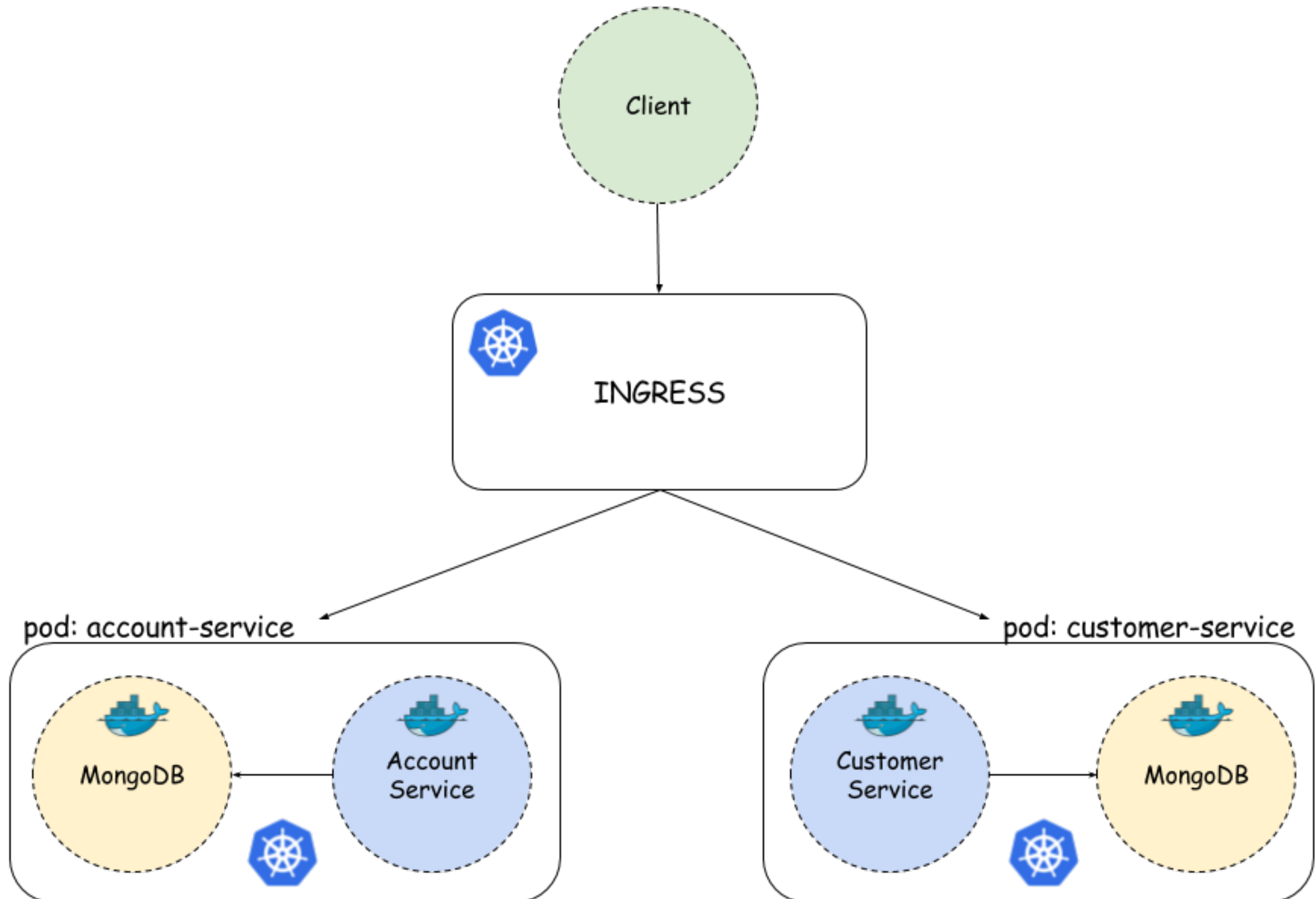
## *KUBERNETES : MicroServices*

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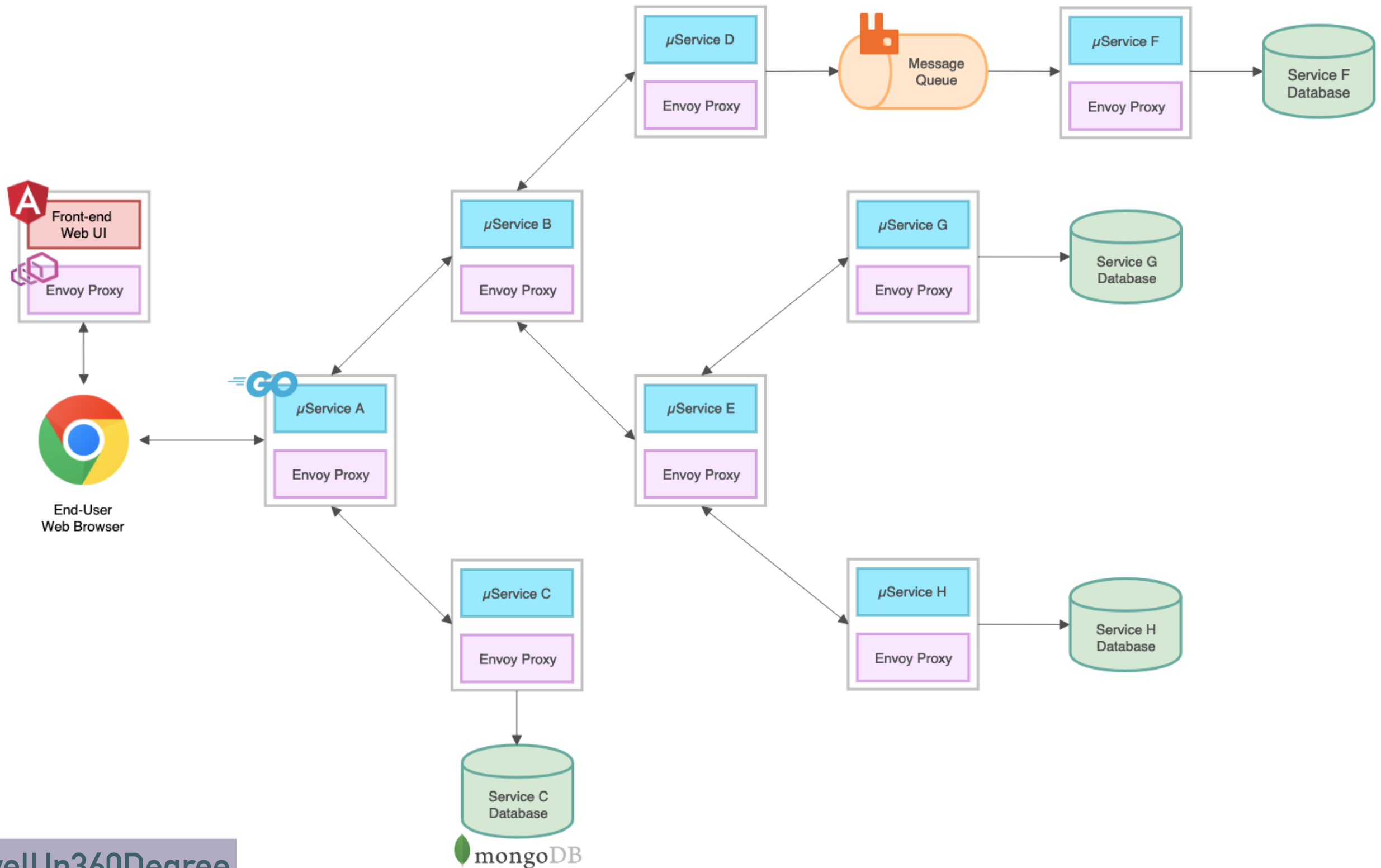
- On **Kubernetes** we can deploy a variety of Applications.
- Those services could be **Stand Alone Services** that nothing to do with Other Services or **Micro-Services**, some small services that make an Application.
- Micro-Service Architecture is very Popular in these days and widely being used in Top IT Firms.
- Micro-Service Facilitate Developer to Split Application multiple chunks and individual processing capacity.

# *KUBERNETES : MicroServices*

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# KUBERNETES : MicroServices



## *KUBERNETES : MicroServices*

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- Challenges with Microservices:
- No Encryption
- No Load Balancing
- No Failover / Auto Retries
- Routing Decisions
- Load Metrics/ Logs
- Access Control to Services

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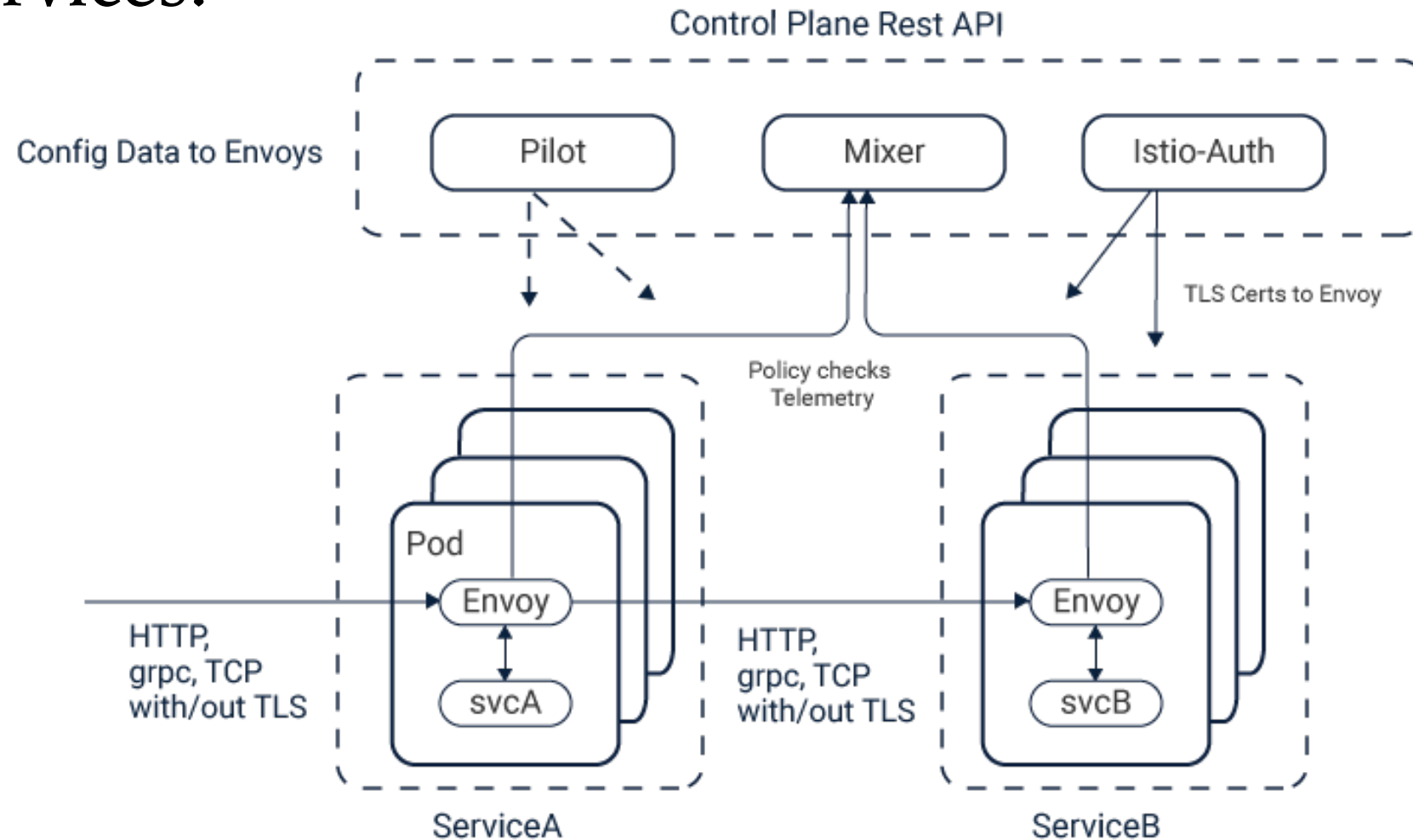
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- **Istio** service mesh provides several capabilities for traffic monitoring, access control, discovery, security, resiliency, and other useful things to a bundle of services.
- **Istio** deployed for Micro Services without any change in code of **Micro Service**.
- To make this possible, Istio deploys an **Istio proxy** (called an **Istio sidecar**) next to each service.
- All of the traffic meant for assistance is **directed to the proxy**, which uses policies to decide **how, when, or if that traffic should be deployed to the service**.

# KUBERNETES : *MicroServices*

## How Istio Works With Containers and Kubernetes

- Istio service mesh, as suggested, uses a sidecar container implementation of the features and functions required mainly for microservices.





*Will see you in Next Lecture...*

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*Thank you!*

A close-up photograph of a hand holding a black marker, writing the words "Thank you!" in a cursive script on a white surface. The hand is positioned on the right side of the frame, with the fingers gripping the marker. The text is written in a dark, fluid cursive style. The background is plain white.

*See you in next lecture ...*