



tetrate

POWERING THE WORLD'S APPLICATION NETWORKS

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Founding Engineer

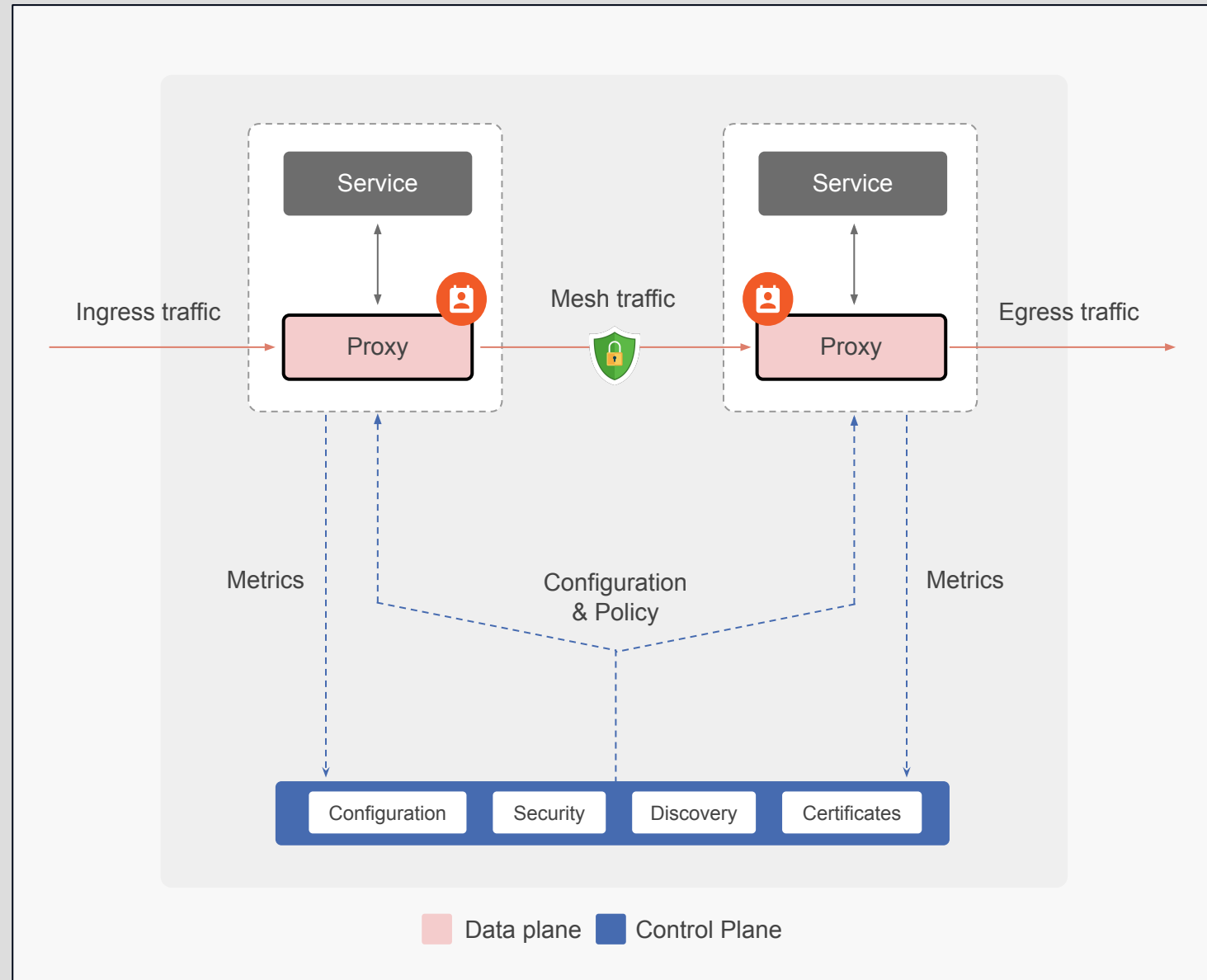
DevSecOps and Zero Trust Architecture (ZTA)
for Multi-Cloud Environments

January 2021

Service Mesh

Offload network and authn/authz functionality to the **sidecars**

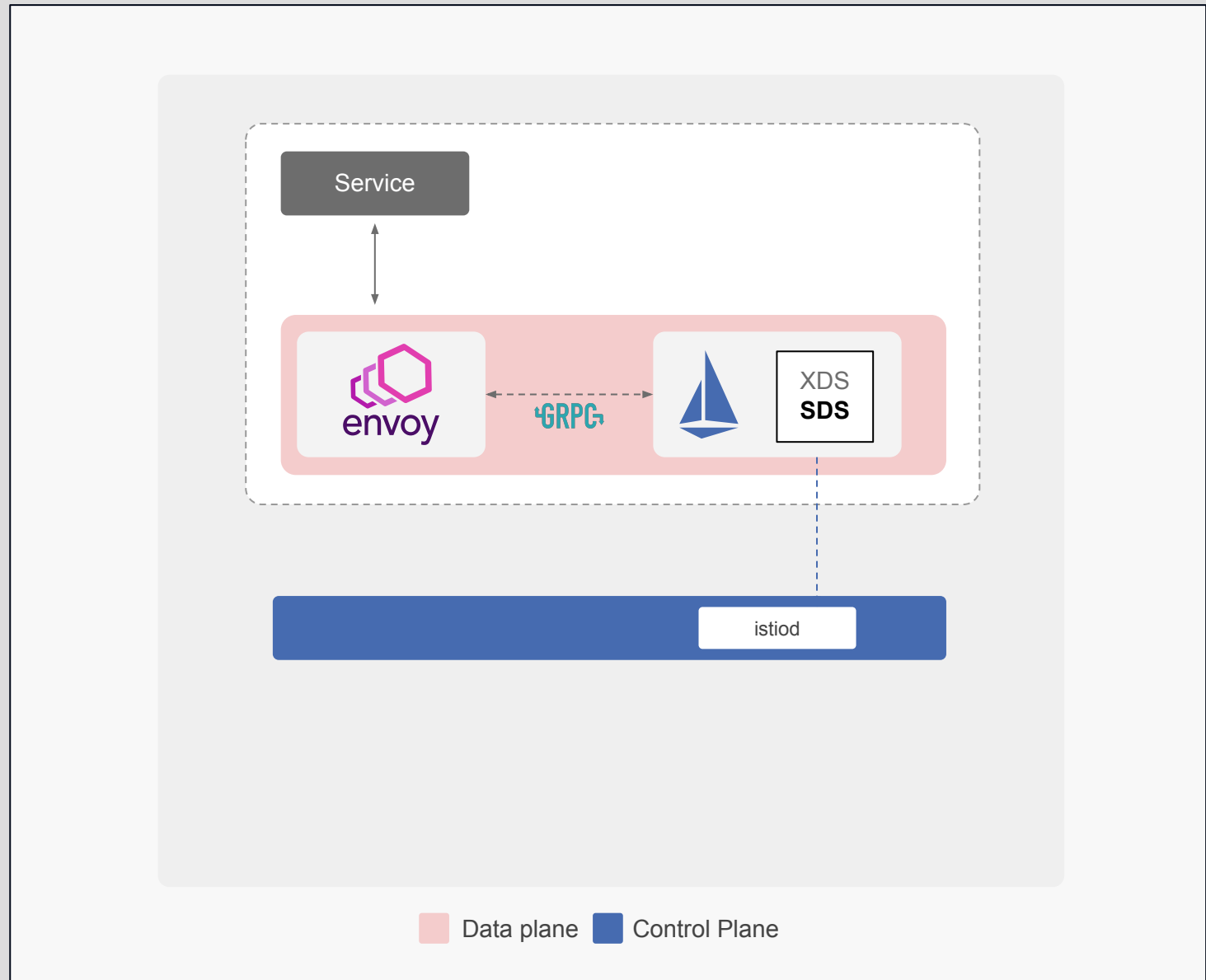
No application changes required !



Inside the sidecar

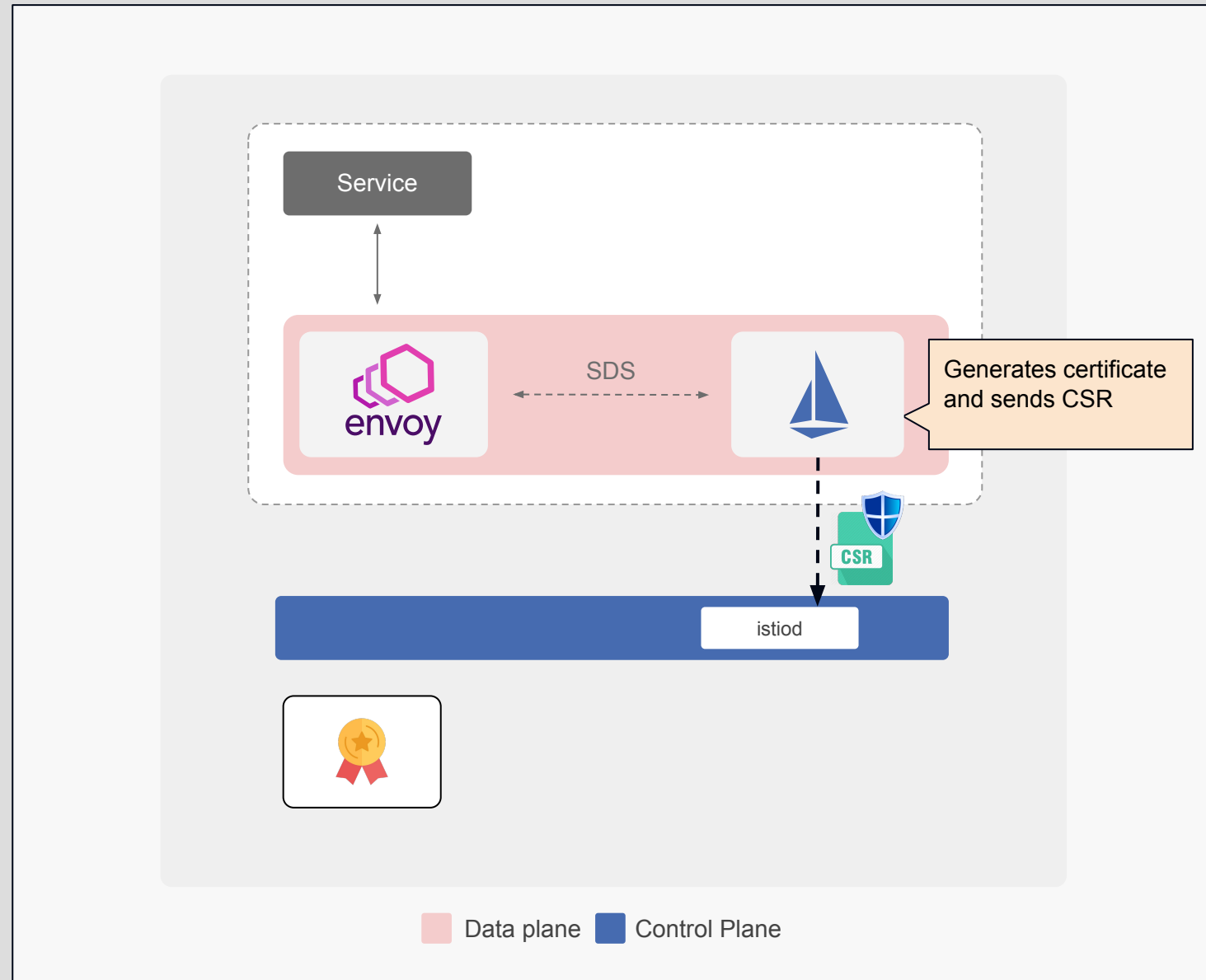
The sidecar container runs two processes:

- The **Envoy** proxy
- The **istio-agent**



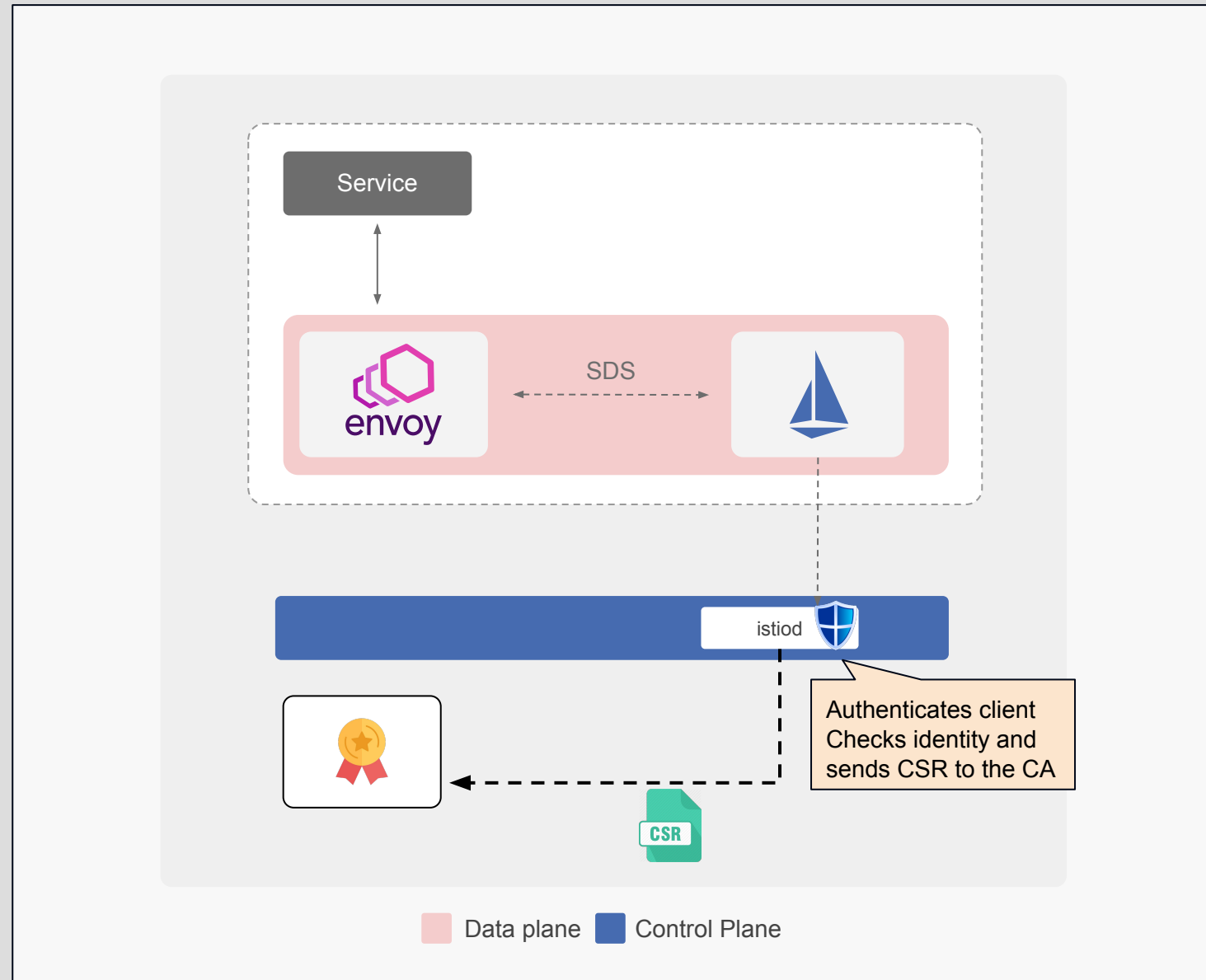
Identity flow

The agent generates an x.509 certificate with the SPIFFE identity, a private key, and sends a CSR for signing



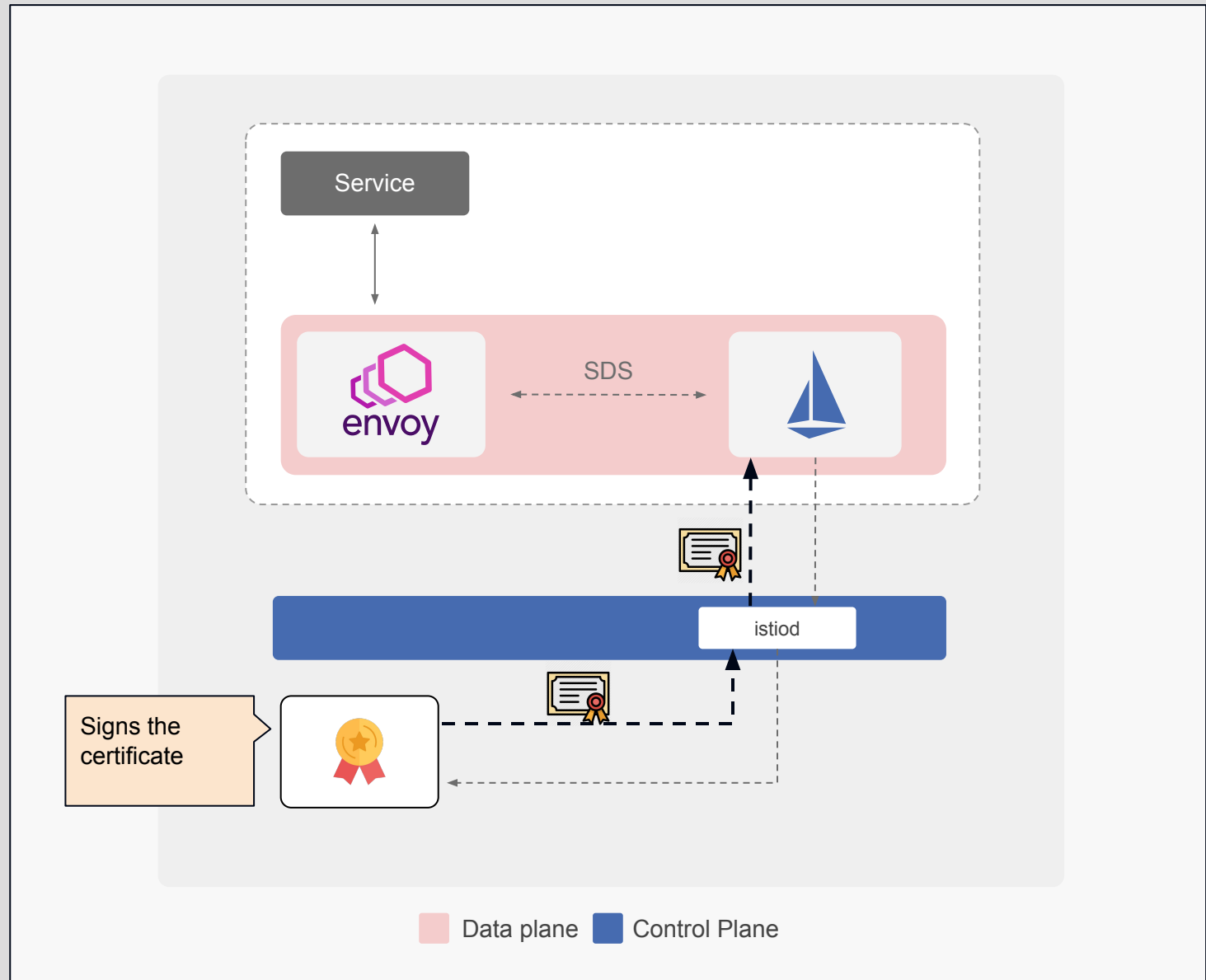
istiod as a Registration Authority

istiod validates the certificate and **authenticates the client** making the request, then forwards the CSR to the CA to have it signed



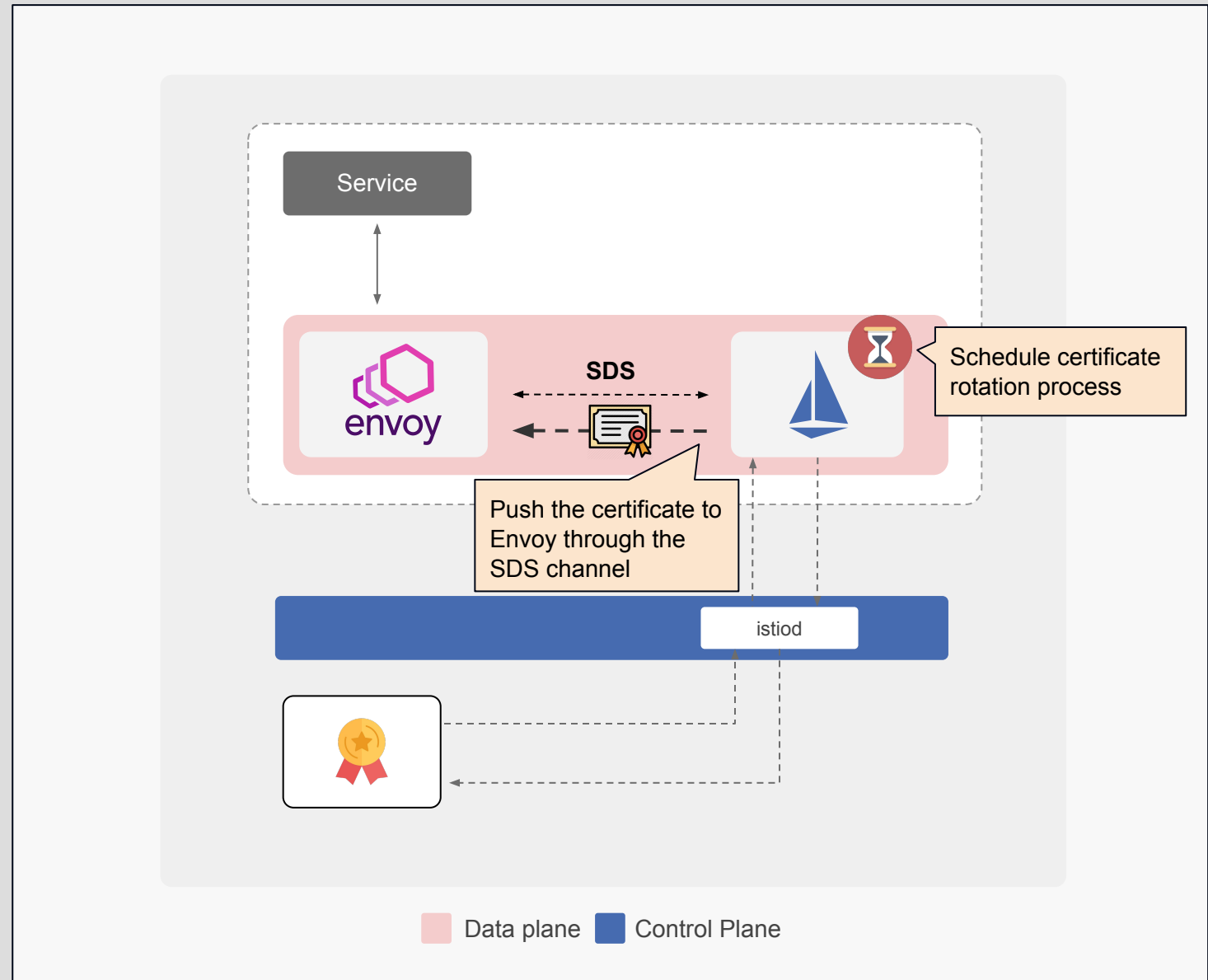
— Certificate signing

The CA signs the certificate and returns it



— Push certificate to the proxy

When the signed certificate is received, the agent pushes it to the proxy



Demo time!

Thank You

Contact



For any further queries, feel free to contact us at info@tetrade.io