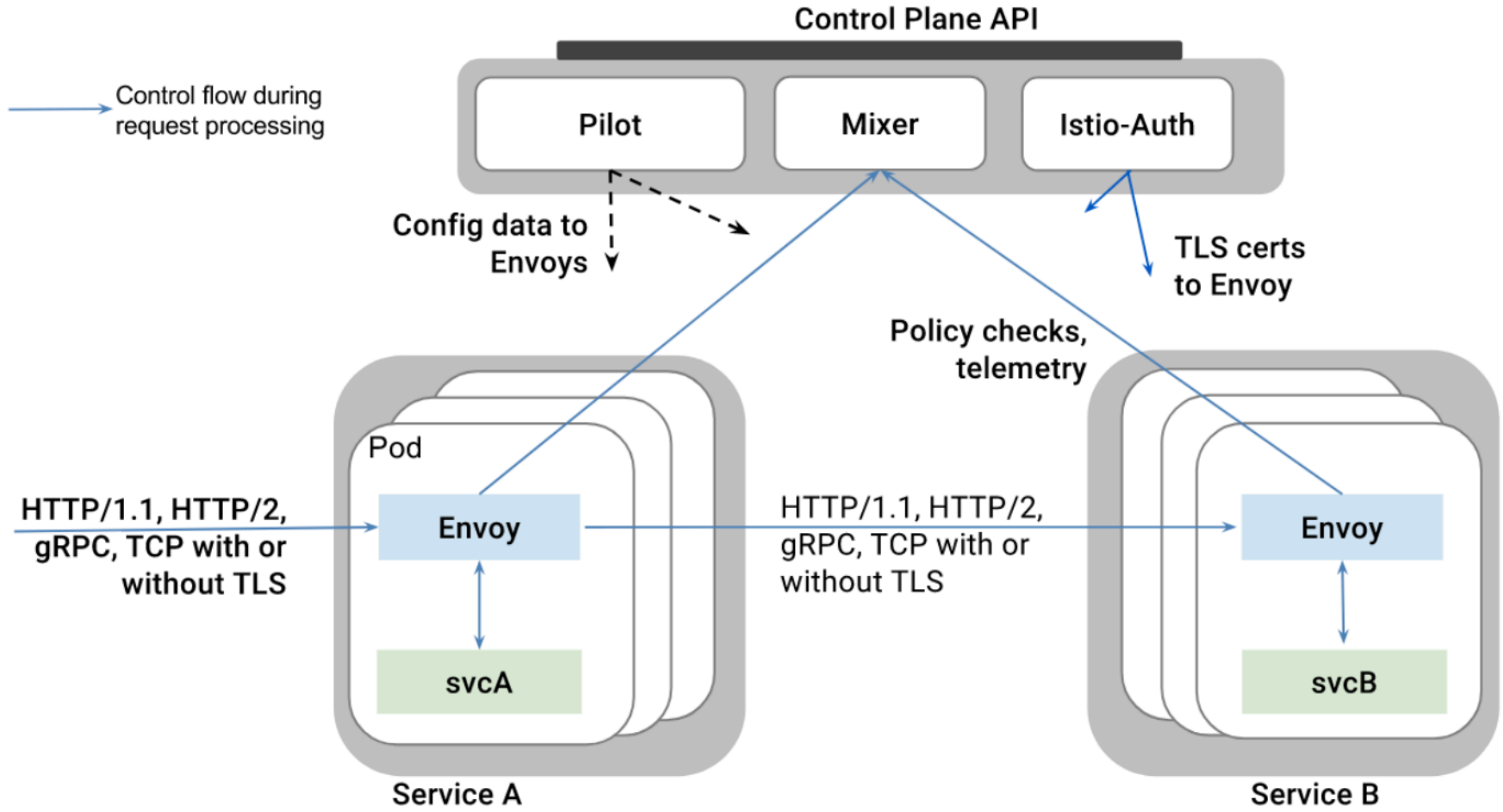
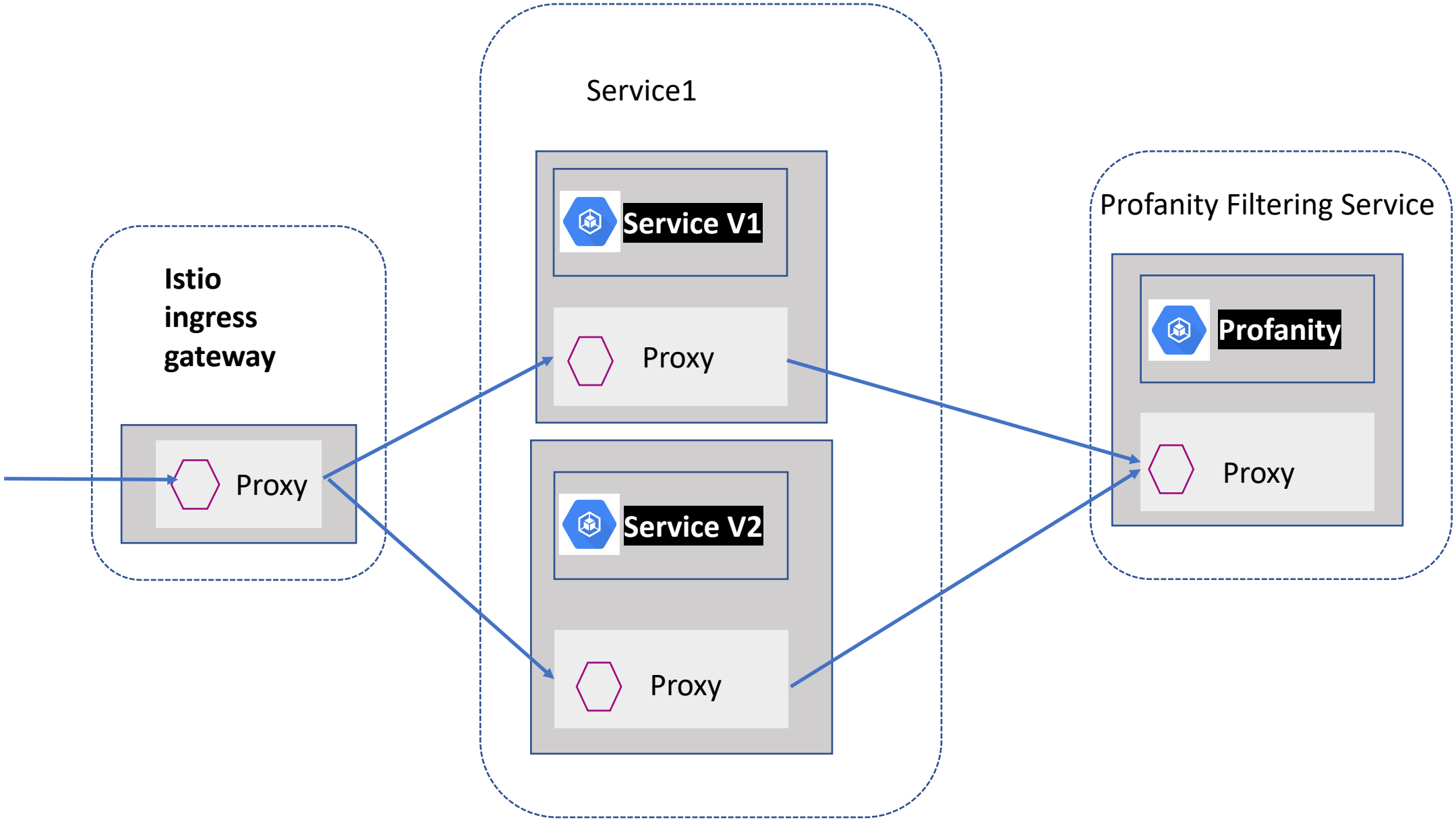
Service Mesh with Istio on EKS

Istio Architecture



1. https://istio.io/docs/concepts/what-is-istio/
2. https://blog.envoyproxy.io/service-mesh-data-plane-vs-control-plane-2774e720f7fc


Service1
Service V1
Proxy
Service V2
Proxy
Istio
ingress
gateway
Proxy
Profanity Filtering Service
Profanity
Proxy

Rate limiting

- https://istio.io/docs/tasks/policy-enforcement/rate-limiting/
- https://istio.io/docs/reference/config/policy-and-telemetry/adapters/redisquota/
- https://istio.io/docs/reference/config/policy-and-telemetry/attribute-vocabulary/
- https://istio.io/docs/reference/config/policy-and-telemetry/expression-language/

Whitelist

- https://istio.io/docs/tasks/policy-enforcement/denial-and-list/
- https://istio.io/docs/concepts/policies-and-telemetry/

Request Routing

- One of the most powerful features a service mesh provides.
- Route particular requests marked by selected HTTP header to specific targets behind the load balancer, allowing easy canary deployment testing and other creative use cases.
- That is possible only with a layer 7 proxy. No layer 4 load balancer or proxy can achieve that functionality.

Service Monitoring and Tracing

- https://istio.io/docs/tasks/telemetry/
- https://istio.io/docs/examples/telemetry/