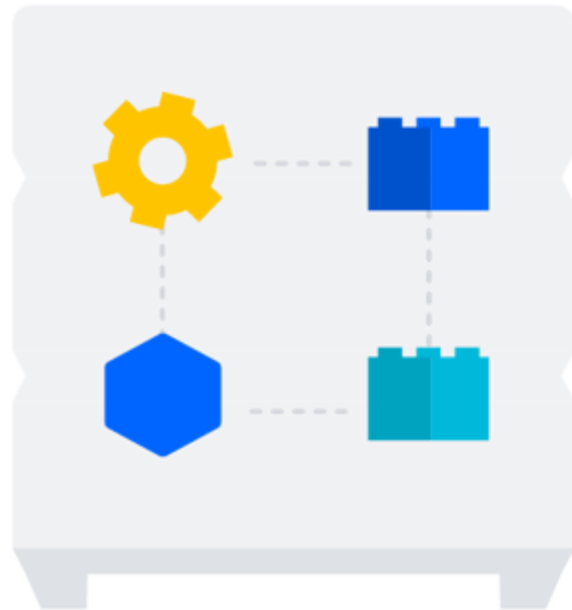


# SERVICE MESH

DE LOODGIETER VAN JE APPLICATIE

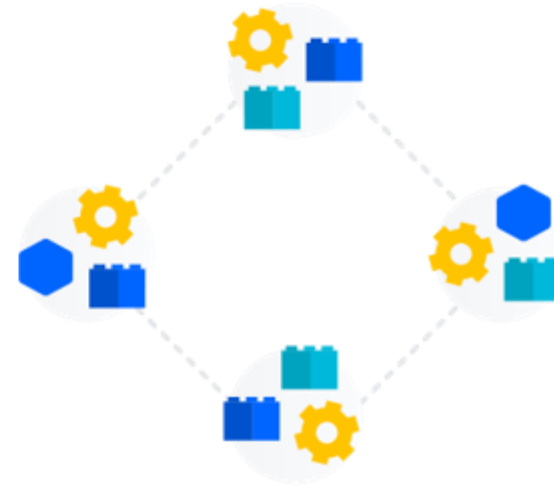
# MONOLITH VS MICROSERVICE

Monolith

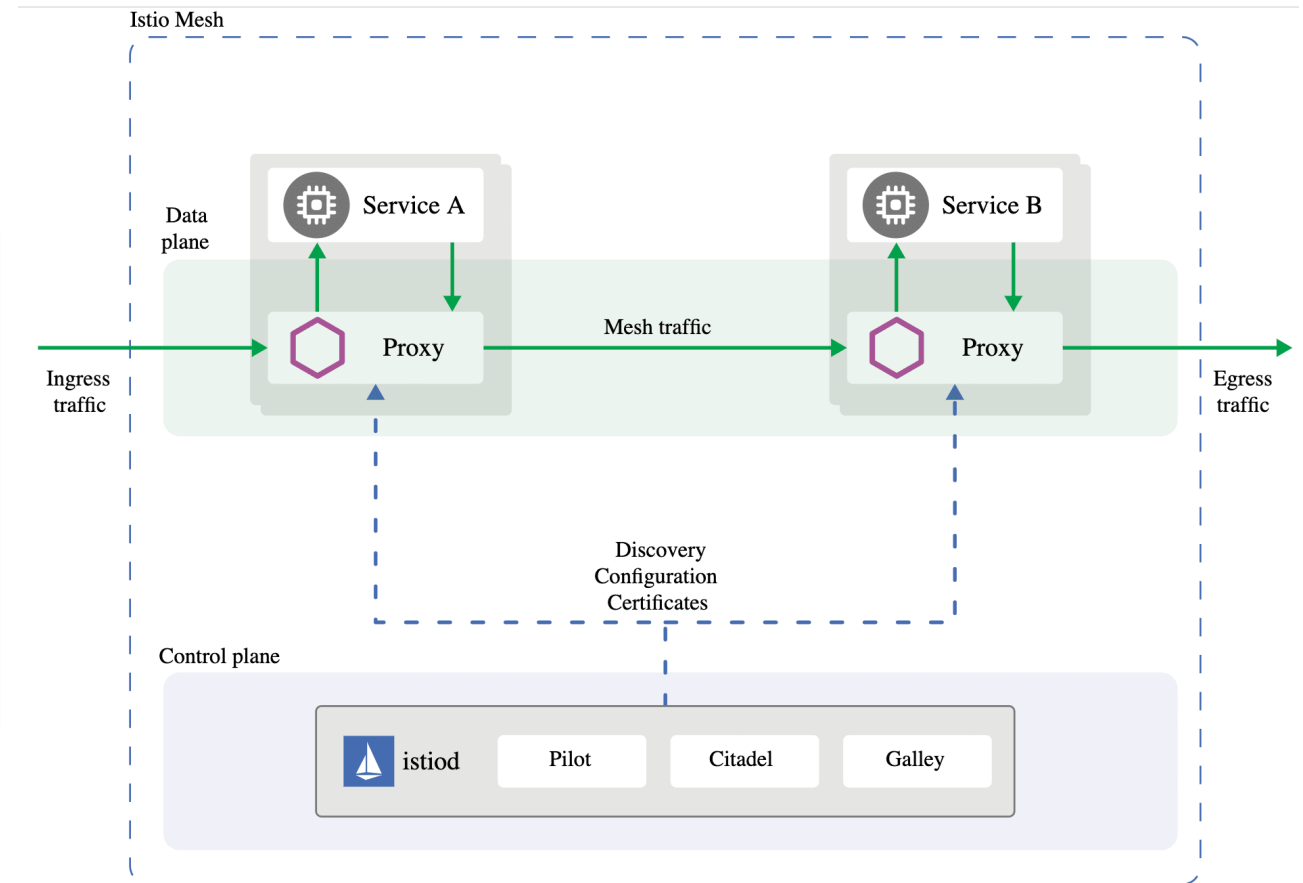
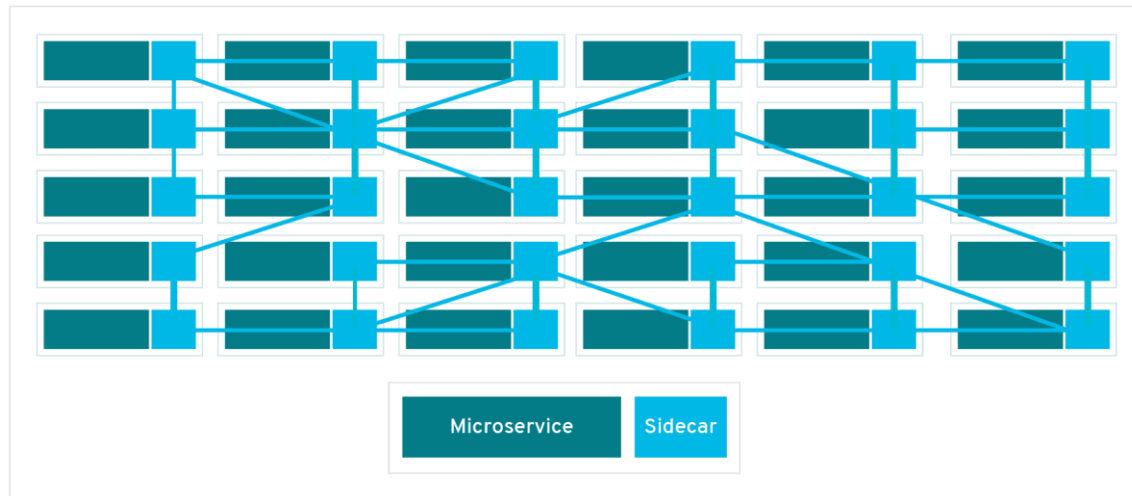


VS

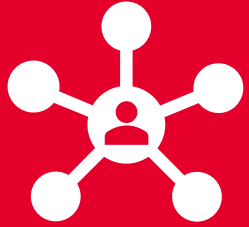
Microservices



# WAT IS EEN SERVICE MESH?



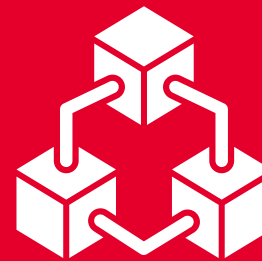
# THEMA'S



Traffic management



Observability

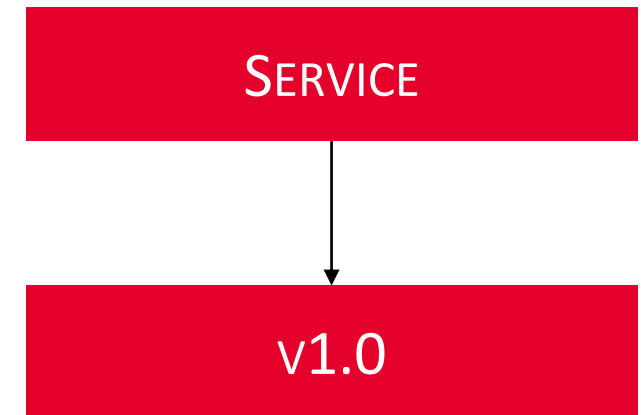


Security



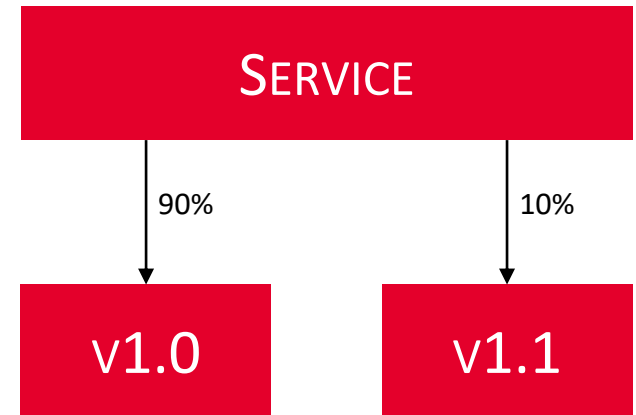
# L7 ROUTING

- // Loadbalancing
- // Individual request routing
- // Header based routing
- // Retries
- // Timeouts



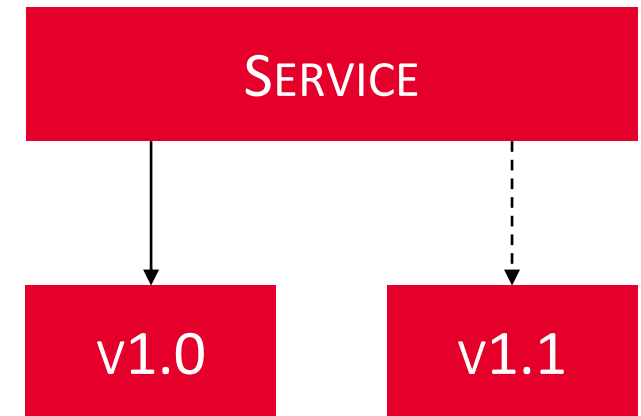
# TRAFFIC SHIFTING

- // Canary deployment
- // A/B Testing
- // Blue/Green deployment

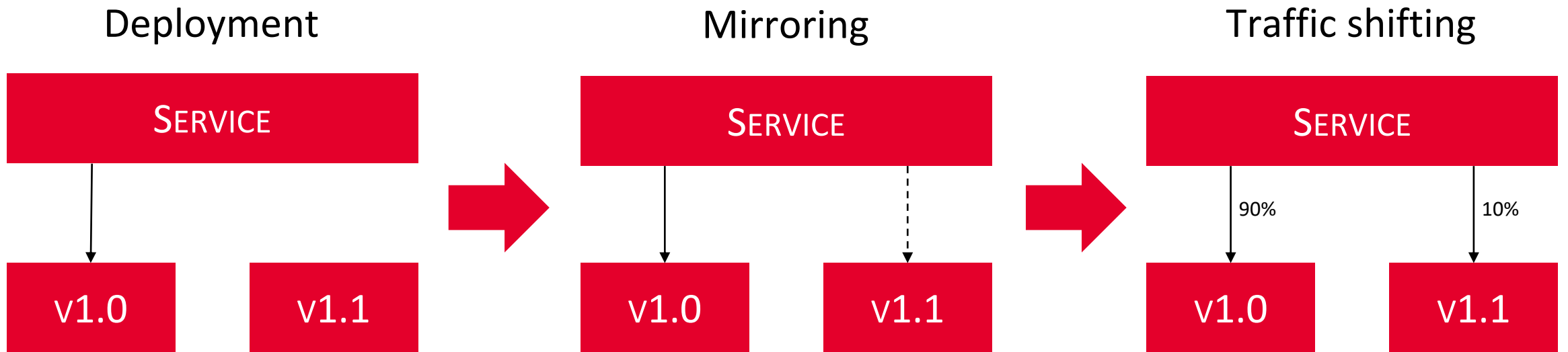


# MIRRORING

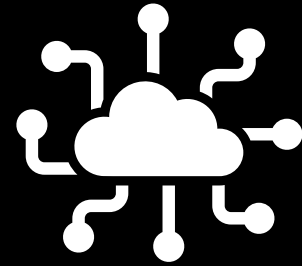
- // “Fire and forget”
- // Traffic percentage



# USE CASE: APPLICATION VERSION RELEASE







# OBSERVABILITY



# LOGS

```
[2019-08-06T16:30:11.746Z] GET /backend/debug/ HTTP/1.1 200 - 0 1124 0 0
```

START\_TIME | METHOD | X-ENVOY-ORIGINAL-PATH | PROTOCOL | RESPONSE\_CODE | RESPONSE\_FLAGS | BYTES\_RECEIVED | BYTES\_SENT | DURATION(ms)

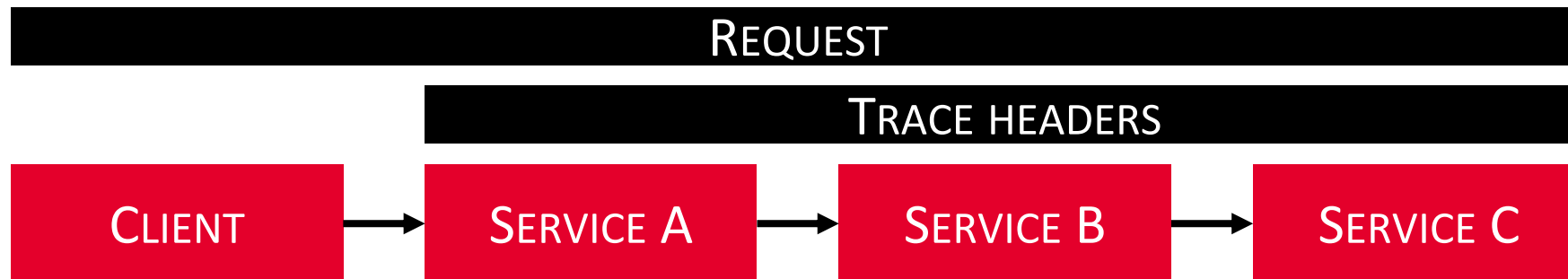
192.168.28.113 | curl/7.63.0 | 6e9e455f-fe18-4511-9c52-aa517af0edff | a70851b76b86511e9b8c60ebd9abcaa2-807989241.us-east-1.elb.amazonaws.com | 10.100.216.61:8080 |

UPSTREAM\_HOST | X-FORWARDED-FOR | REQUEST-ID | HOST | USER-AGENT | UPSTREAM-SERVICE-TIME

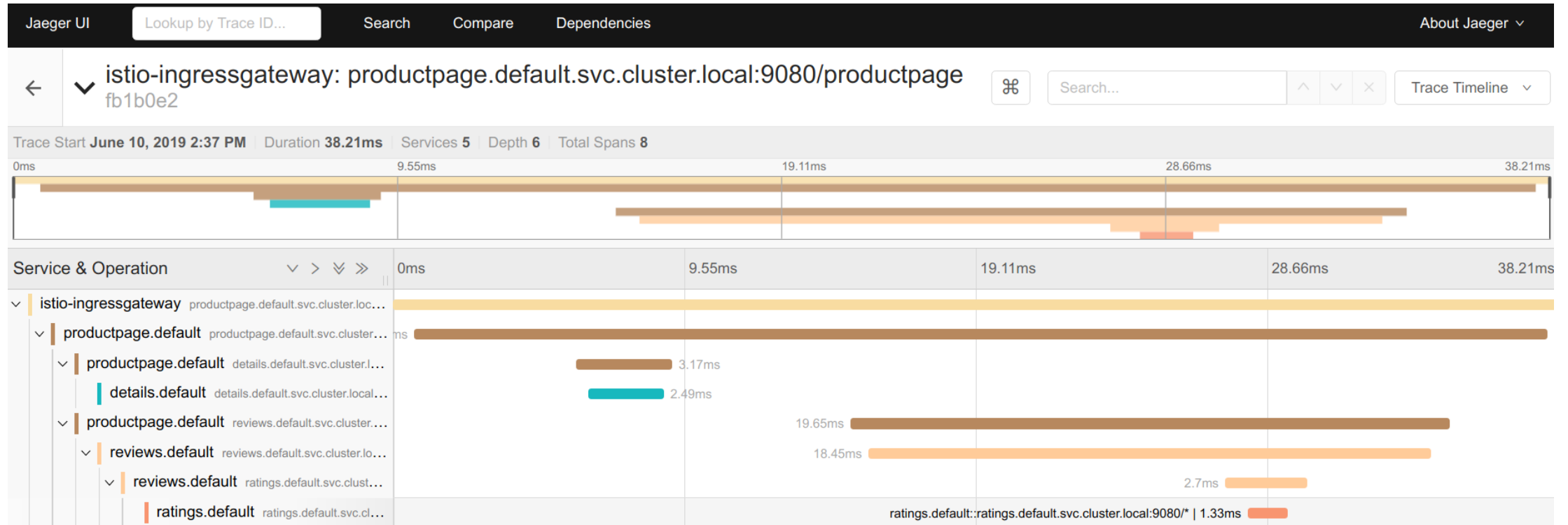


# TRACING

- ▣ Service Mesh managed
- ▣ Application managed

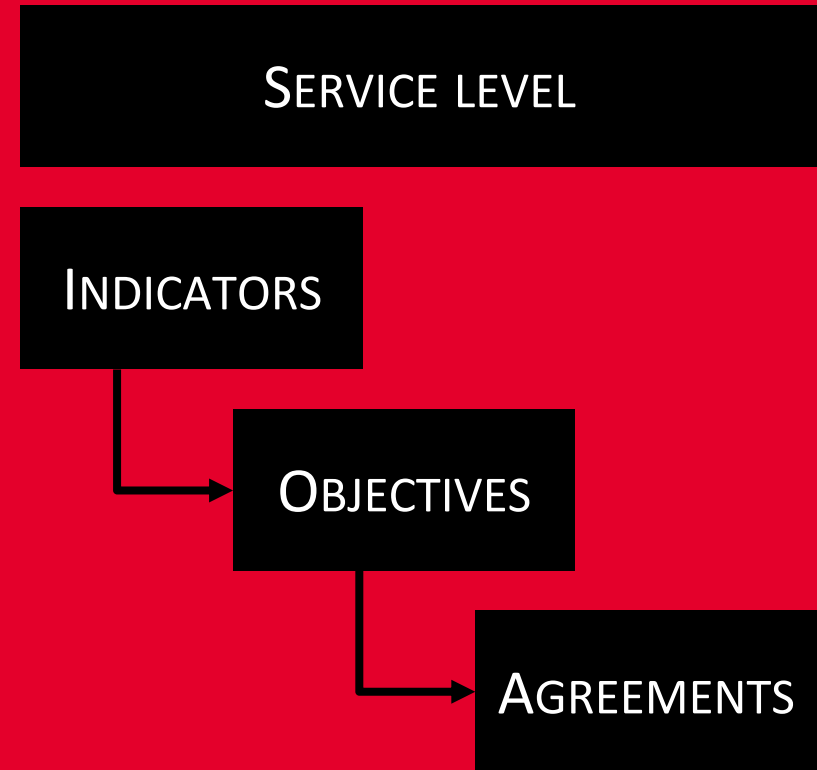


# TRACING

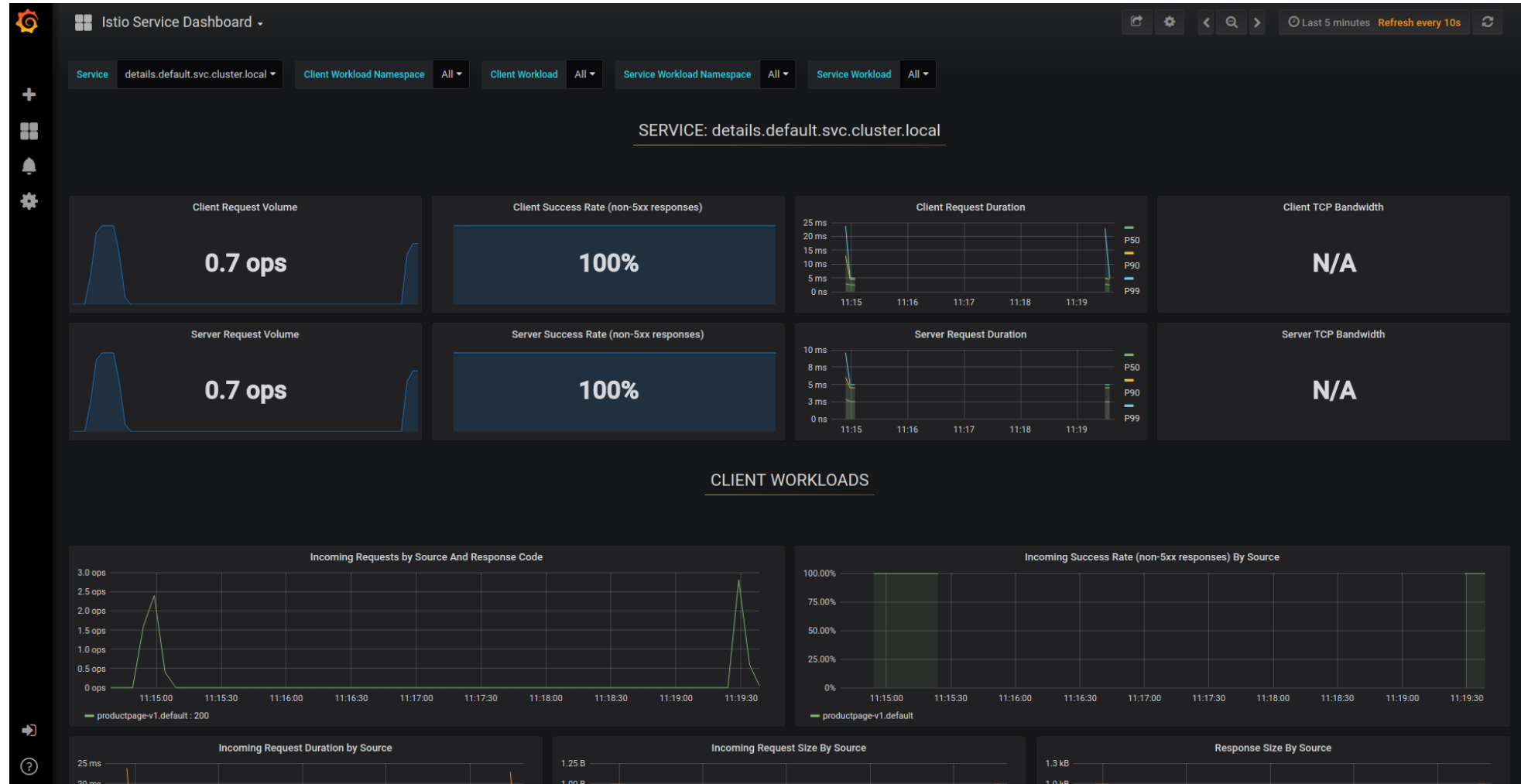


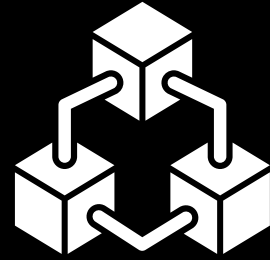
# METRICS

- // Request count
- // Request duration
- // Request size
- // Success rate



# METRICS





**SECURITY**

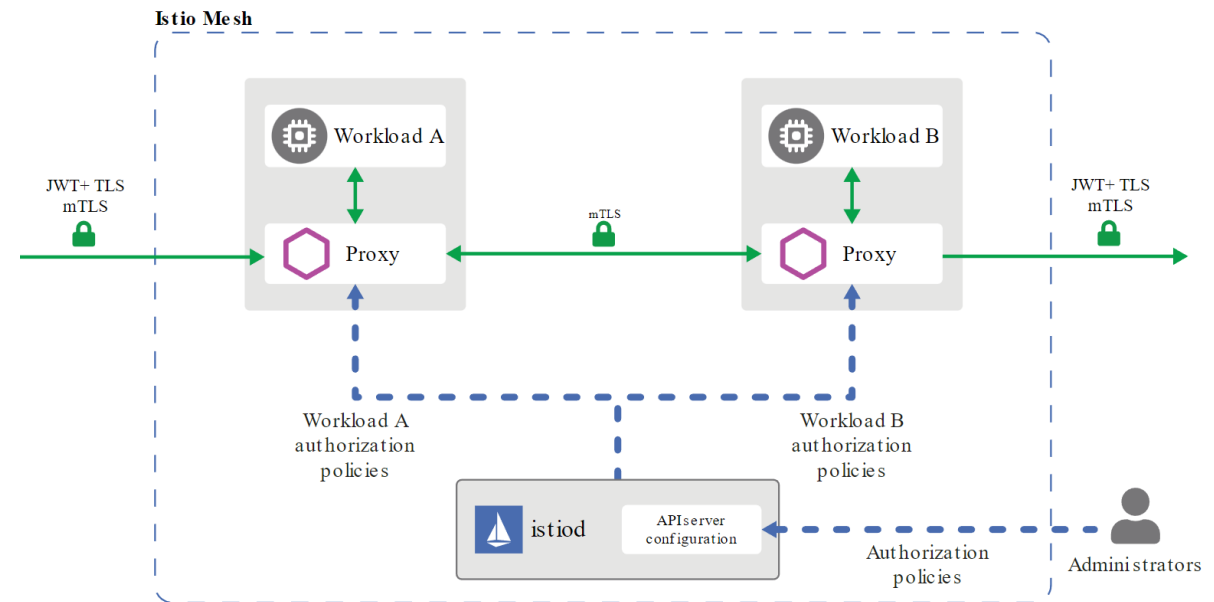


# AUTHENTICATIE

## // mTLS

- Permissive
- Strict
- Disable

## // JWT claims





# AUTORISATIE

- ▮ Policies (L7)
- ▮ Workload-to-workload
- ▮ User-to-workload



# SERVICE MESH OPLOSSINGEN



**Open Service Mesh**

