Service Mesh Up and Running with Linkerd

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Agenda

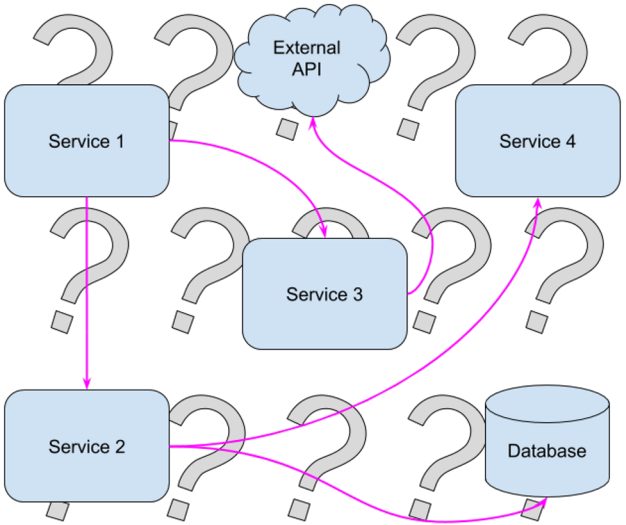
- Service Mesh Overview and Concepts 💡
- Linkerd Architecture 🏗️
- Demo 💻
- Summary 📝

Service Mesh Overview

Service Mesh Overview

Distributed systems are complex!

A service mesh uses the network of a distributed system to observe, secure, and add reliability



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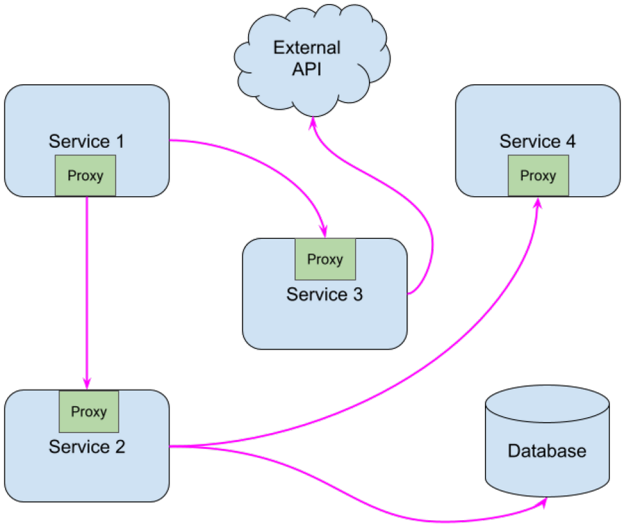
Service Mesh Overview

Data Plane proxies handle service traffic

- mTLS
- Load Balancing
- Telemetry
- Retries
- Timeouts



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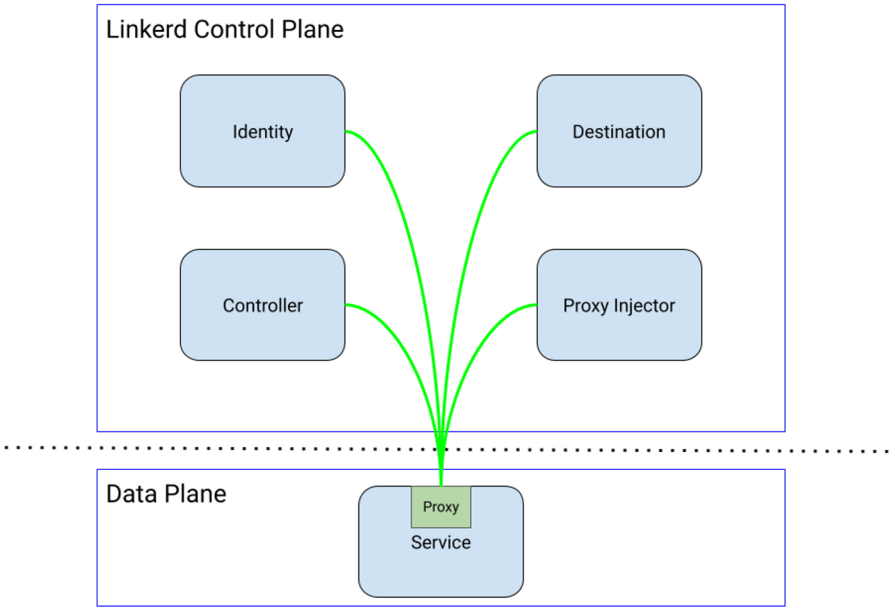
Service Mesh Overview

Control Plane configures the proxies, which are automatically injected into the services



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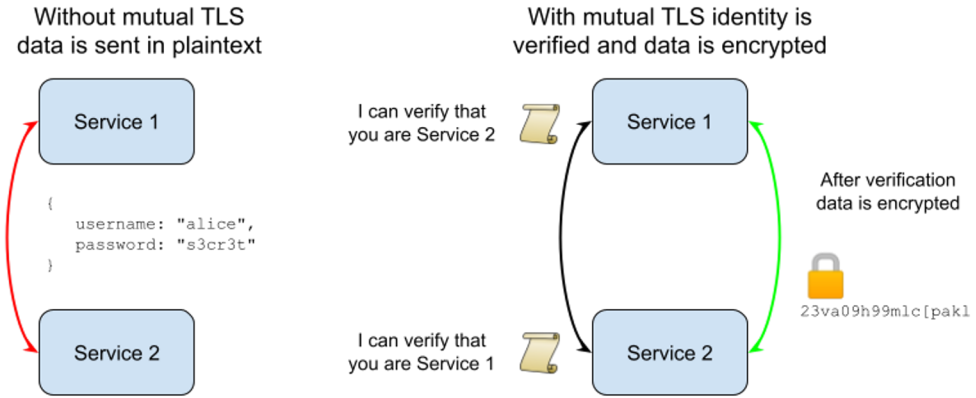
Service Mesh Concepts

Service Mesh Concepts: Security

mutual TLS

- Verification
- Encryption



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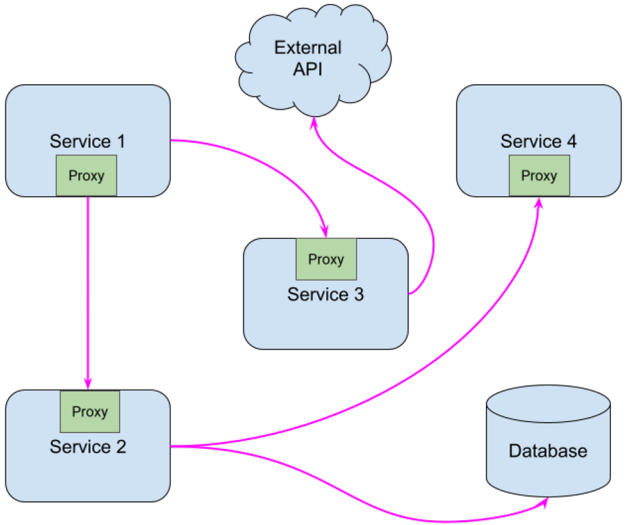
Service Mesh Concepts: Observability

Proxies collect TCP and HTTP metrics

NAME	STATUS	MESHED	SUCCESS	RPS	LATENCY_P50	LATENCY_P95	LATENCY_P99	TCP_CONN
emoji-fc7bd497f-g8v2t	Running	1/1	100.00%	1.8rps	1ms	1ms	1ms	3
emoji-fc7bd497f-n8948	Running	1/1	100.00%	0.8rps	1ms	1ms	1ms	3
vote-bot-5c89865748-hl752	Running	1/1	100.00%	0.3rps	1ms	2ms	2ms	1
voting-dd8c9d48-wcrm4	Running	1/1	93.42%	1.3rps	1ms	1ms	1ms	3
web-76bdcbc468-whnzk	Running	1/1	95.59%	2.3rps	3ms	5ms	5ms	3



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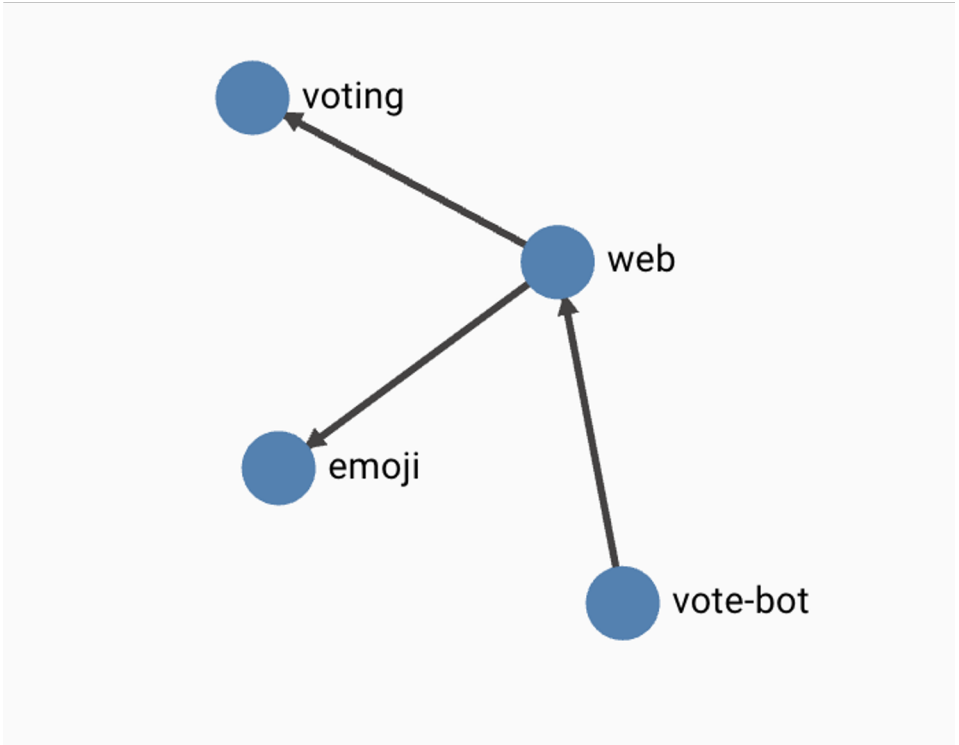
Service Mesh Concepts: Observability

Proxies enable service topology



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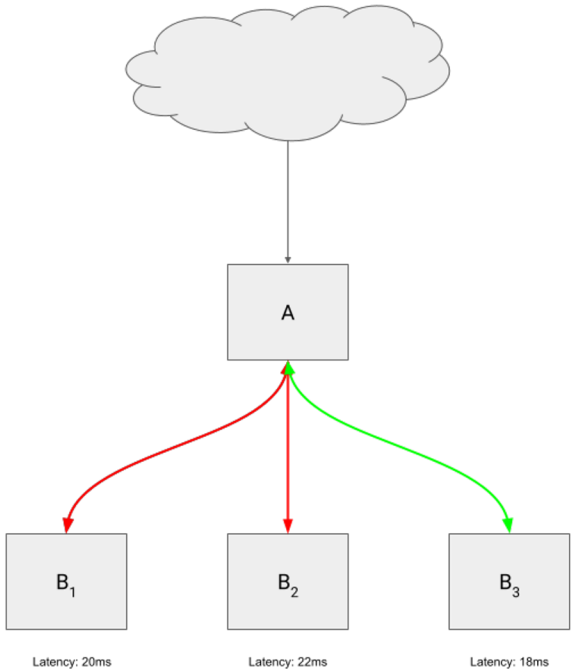
Service Mesh Concepts: Reliability

Load Balancing, Retries, and Timeouts ensure that requests are processed properly



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Using Linkerd: Demo

Summary

Thank you

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