

When the command line
is not enough:
Why your OSS project
needs a GUI

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 @marzipan

 @rmars

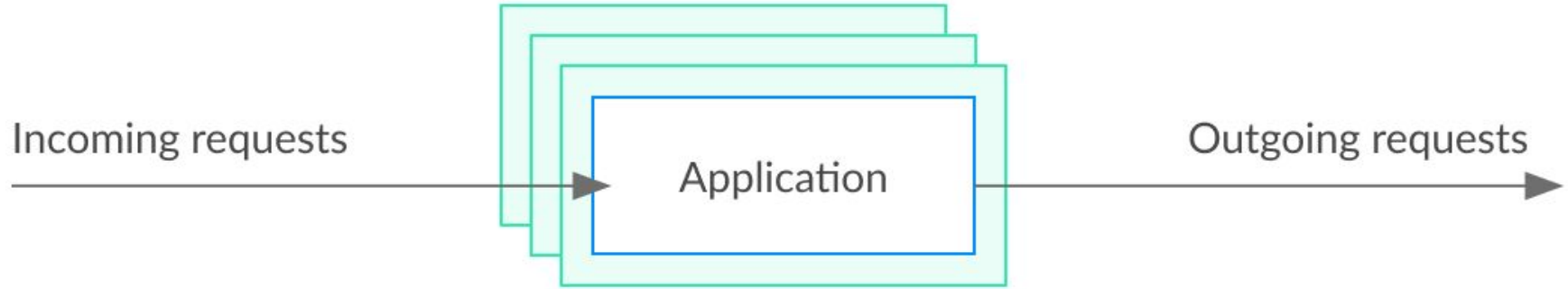
 @marzipan



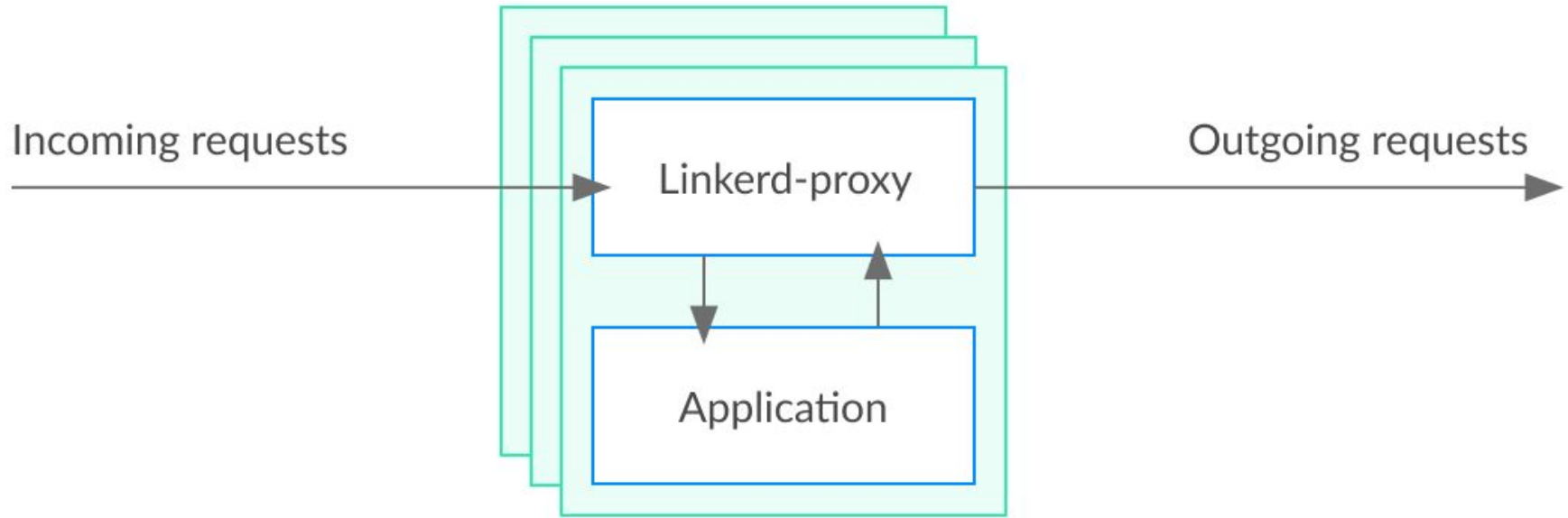


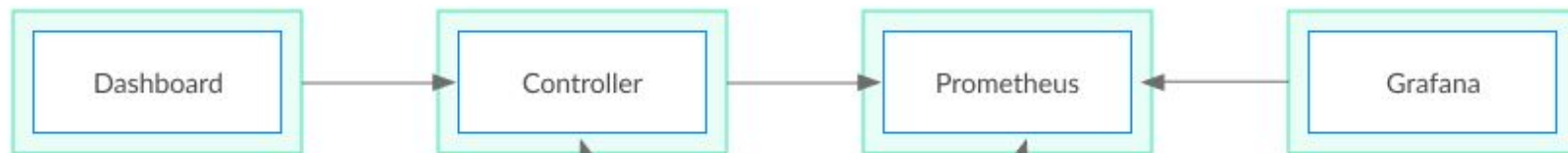
LINKERD

Requests through a service



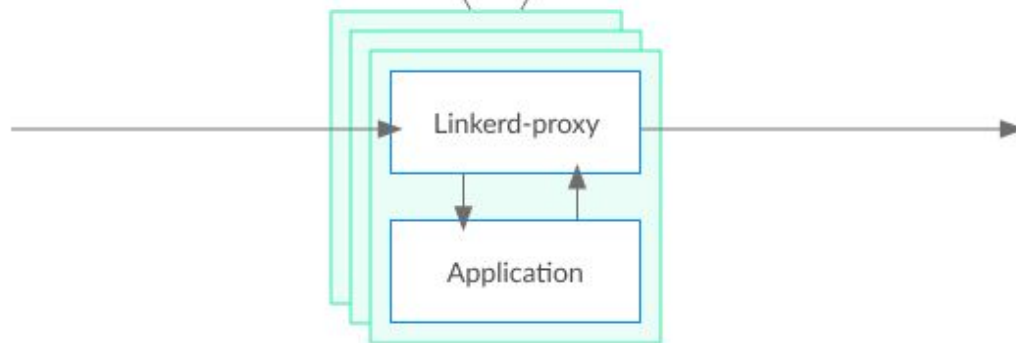
Service with Linkerd data plane





Control Plane

Data Plane





Overview



Tap



Top



Top Routes



Service Mesh



Resources



Authorities



Deployments

● All

● linkerd/linkerd-controller

● linkerd/linkerd-grafana

● linkerd/linkerd-identity

● linkerd/linkerd-promethe...

● linkerd/linkerd-proxy-inje...

● linkerd/linkerd-sp-validator

● linkerd/linkerd-web



Daemon Sets



Jobs



Namespaces



Pods



Replication Controllers



Stateful Sets



Debug



Documentation



Community

HTTP metrics



Namespace ↑	Deployment ↓	↑ Meshed	↑ Success Rate	↑ RPS	↑ P50 Latency	↑ P95 Latency	↑ P99 Latency	Grafana
linkerd	linkerd-web	1/1	100.00% ●	0.3	2 ms	3 ms	3 ms	🔧
linkerd	linkerd-sp-validator	1/1	100.00% ●	0.2	1 ms	19 ms	20 ms	🔧
linkerd	linkerd-proxy-injector	1/1	100.00% ●	0.2	3 ms	5 ms	5 ms	🔧
linkerd	linkerd-prometheus	1/1	100.00% ●	48.78	169 ms	758 ms	952 ms	🔧
linkerd	linkerd-identity	1/1	100.00% ●	0.3	2 ms	9 ms	10 ms	🔧
linkerd	linkerd-grafana	1/1	100.00% ●	0.3	5 ms	9 ms	10 ms	🔧
linkerd	linkerd-controller	1/1	100.00% ●	3.72	225 ms	758 ms	952 ms	🔧
kube-system	kube-dns	0/1	---	---	---	---	---	
docker	compose-api	0/1	---	---	---	---	---	
docker								

TCP metrics

Namespace

linkerd

linkerd

linkerd

linkerd

linkerd

linkerd

```
18:21:07 mars ~/w/go/src/github.com/buoyantio $ linkerd stat deploy -n linkerd
NAME                               MESHED  SUCCESS  RPS    LATENCY_P50  LATENCY_P95  LATENCY_P99  TCP_CONN
linkerd-controller                 1/1     100.00%  2.0rps  100ms        400ms        480ms        18
linkerd-grafana                    1/1     100.00%  0.3rps  1ms          2ms          2ms          2
linkerd-identity                   1/1     100.00%  0.3rps  1ms          2ms          2ms          9
linkerd-prometheus                 1/1     100.00%  21.6rps 136ms       296ms       372ms       38
linkerd-proxy-injector             1/1     100.00%  0.2rps  1ms          2ms          2ms          1
linkerd-sp-validator               1/1     100.00%  0.2rps  1ms          1ms          1ms          1
linkerd-web                        1/1     100.00%  0.3rps  3ms          19ms        20ms         2
```

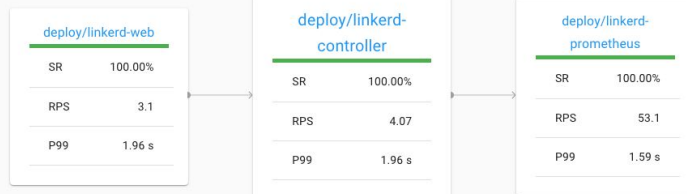
linkerd	linkerd-identity	1/1	9	260.9B/s	257.08B/s	🔧
linkerd	linkerd-grafana	1/1	2	347.55B/s	343.73B/s	🔧

- Overview
- Tap
- Top
- Top Routes
- Service Mesh
- Resources
- Authorities
- Deployments
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 - linkerd/linkerd-grafana
 - linkerd/linkerd-identity
 - linkerd/linkerd-promethe...
 - linkerd/linkerd-proxy-inje...
 - linkerd/linkerd-sp-validator
 - linkerd/linkerd-web
- Daemon Sets
- Jobs
- Namespaces
- Pods
- Replication Controllers
- Stateful Sets
- Debug

- Documentation
- Community
- Join the Mailing List
- Join us on Slack
- File an Issue

deployment/linkerd-controller

meshed



LIVE CALLS

ROUTE METRICS

	Name	Method	Path	Count	Best	Worst	Last	Success Rate	Tap
TO	deploy/linkerd-prometheus	GET	/api/v1/query	66	14 ms	867 ms	819 ms	100.00%	Tap
FROM	deploy/linkerd-web	POST	/api/v1/StatSummary	1	893 ms	893 ms	893 ms	100.00%	Tap
FROM	deploy/linkerd-prometheus	GET	/metrics	1	69 ms	69 ms	69 ms	100.00%	Tap
FROM	deploy/linkerd-web	POST	/api/v1/ListPods	1	145 ms	145 ms	145 ms	100.00%	Tap

Current Top query

linkerd top deployment/linkerd-controller --namespace linkerd

Inbound

Namespace	Resource	Meshed	Success Rate	RPS	P50 Latency	P95 Latency	P99 Latency	Grafana
linkerd	deploy/linkerd-web	1/1	100.00%	3.1	788 ms	1.79 s	1.96 s	Grafana

Outbound

Namespace	Resource	Meshed	Success Rate	RPS	P50 Latency	P95 Latency	P99 Latency	Grafana
linkerd	deploy/linkerd-prometheus	1/1	100.00%	53.1	334 ms	955 ms	1.59 s	Grafana

Linkerd tap: live requests

```
18:21:21 mars ~/w/go/src/github.com/buoyantio $ linkerd tap deploy -n linkerd
req id=2:0 proxy=out src=10.1.5.252:49498 dst=10.1.5.253:4190 tls=no_authority_in_http_request :method=POST :authority=10.1.5.253:4190 :path=/io.linkerd.proxy.tap.Tap/Observe
req id=2:1 proxy=out src=10.1.5.252:1588 dst=10.1.5.255:4190 tls=no_authority_in_http_request :method=POST :authority=10.1.5.255:4190 :path=/io.linkerd.proxy.tap.Tap/Observe
req id=2:2 proxy=out src=10.1.5.252:50176 dst=10.1.5.251:4190 tls=no_authority_in_http_request :method=POST :authority=10.1.5.251:4190 :path=/io.linkerd.proxy.tap.Tap/Observe
req id=2:3 proxy=out src=10.1.5.252:34956 dst=10.1.6.1:4190 tls=no_authority_in_http_request :method=POST :authority=10.1.6.1:4190 :path=/io.linkerd.proxy.tap.Tap/Observe
req id=2:4 proxy=out src=10.1.5.252:40222 dst=10.1.5.254:4190 tls=no_authority_in_http_request :method=POST :authority=10.1.5.254:4190 :path=/io.linkerd.proxy.tap.Tap/Observe
req id=2:5 proxy=out src=10.1.5.252:50864 dst=10.1.6.0:4190 tls=no_authority_in_http_request :method=POST :authority=10.1.6.0:4190 :path=/io.linkerd.proxy.tap.Tap/Observe
rsp id=2:0 proxy=out src=10.1.5.252:49498 dst=10.1.5.253:4190 tls=no_authority_in_http_request :status=200 latency=10885µs
rsp id=2:1 proxy=out src=10.1.5.252:1588 dst=10.1.5.255:4190 tls=no_authority_in_http_request :status=200 latency=6373µs
rsp id=2:3 proxy=out src=10.1.5.252:34956 dst=10.1.6.1:4190 tls=no_authority_in_http_request :status=200 latency=5915µs
rsp id=2:4 proxy=out src=10.1.5.252:40222 dst=10.1.5.254:4190 tls=no_authority_in_http_request :status=200 latency=5651µs
rsp id=2:5 proxy=out src=10.1.5.252:50864 dst=10.1.6.0:4190 tls=no_authority_in_http_request :status=200 latency=5382µs
rsp id=2:2 proxy=out src=10.1.5.252:50176 dst=10.1.5.251:4190 tls=no_authority_in_http_request :status=200 latency=6483µs
req id=2:6 proxy=out src=10.1.5.252:41976 dst=10.1.5.253:4190 tls=no_authority_in_http_request :method=POST :authority=10.1.5.253:4190 :path=/io.linkerd.proxy.tap.Tap/Observe
rsp id=2:6 proxy=out src=10.1.5.252:41976 dst=10.1.5.253:4190 tls=no_authority_in_http_request :status=200 latency=5202µs
req id=3:0 proxy=out src=10.1.5.253:51158 dst=10.1.5.252:8085 tls=true :method=POST :authority=linkerd-controller-api.linkerd.svc.cluster.local:8085 :path=/api/v1/StatSummary
req id=2:7 proxy=in src=10.1.5.253:50538 dst=10.1.5.252:8085 tls=true :method=POST :authority=linkerd-controller-api.linkerd.svc.cluster.local:8085 :path=/api/v1/StatSummary
req id=2:8 proxy=out src=10.1.5.252:33802 dst=10.1.5.254:9090 tls=true :method=GET :authority=linkerd-prometheus.linkerd.svc.cluster.local:9090 :path=/api/v1/query
req id=0:0 proxy=in src=10.1.5.252:51358 dst=10.1.5.254:9090 tls=true :method=GET :authority=linkerd-prometheus.linkerd.svc.cluster.local:9090 :path=/api/v1/query
req id=3:1 proxy=in src=10.1.0.1:41798 dst=10.1.5.253:9994 tls=not_provided_by_remote :method=GET :authority=10.1.5.253:9994 :path=/ready
```

 Overview Tap Top Top Routes Service Mesh Resources ^

> Authorities

v Deployments

● All

● linkerd/linkerd-controller

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● linkerd/linkerd-identity

● linkerd/linkerd-promethe...

● linkerd/linkerd-proxy-inje...

● linkerd/linkerd-sp-validator

● linkerd/linkerd-web

> Daemon Sets

> Jobs

> Namespaces

> Pods

> Replication Controllers

> Stateful Sets

Namespace

linkerd

Resource

deployment/linkerd-web

STOP

RESET

Current Tap query

```
linkerd tap deployment/linkerd-web --namespace linkerd --to deployment/linkerd-controller --to-namespace linkerd --path /api/v1/StatSummary
```

Show more filters

	Direction	Name	Method	Path	Latency	HTTP status	GRPC status
▼	TO	deployment/linkerd-controller	POST	/api/v1/StatSummary			
▼	TO	deployment/linkerd-controller	POST	/api/v1/StatSummary			
▼	TO	deployment/linkerd-controller	POST	/api/v1/StatSummary	1.35 s	200	---
▼	TO	deployment/linkerd-controller	POST	/api/v1/StatSummary	686 ms	200	---
▼	TO	deployment/linkerd-controller	POST	/api/v1/StatSummary	1.02 s	200	---
▼	TO	deployment/linkerd-controller	POST	/api/v1/StatSummary	973 ms	200	---
▼	TO	deployment/linkerd-controller	POST	/api/v1/StatSummary	491 ms	200	---
▼	TO	deployment/linkerd-controller	POST	/api/v1/StatSummary	406 ms	200	---
▼	TO	deployment/linkerd-controller	POST	/api/v1/StatSummary	448 ms	200	---
▼	TO	deployment/linkerd-controller	POST	/api/v1/StatSummary	482 ms	200	---

linkerd / linkerd2

Unwatch 163 Star 3,780 Fork 304

Code Issues 243 Pull requests 23 Projects 3 Wiki Insights

Pulse

Contributors

Community

Traffic

Commits

Code frequency

Dependency graph

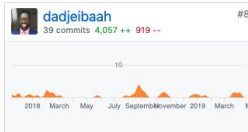
Network

Forks

Dec 3, 2017 – May 6, 2019

Contributions: Commits

Contributions to master, excluding merge commits



Benefits of a GUI

Ability to aggregate several types of data on one page

Tooltips vs man pages



Easy entry point for external contributors

Widens pool of potential contributors

Can complement your app: links, sorting, dragging,
autocomplete



Join our community!



github.com/linkerd



slack.linkerd.io



[@linkerd](https://twitter.com/linkerd)

FROM YOUR FRIENDS AT



BUOYANT