

adidas

REMOTE WRITE STORAGE WARS

ALEJANDRO CESPEDES

WHO AM I?

ALEJANDRO CÉSPEDES

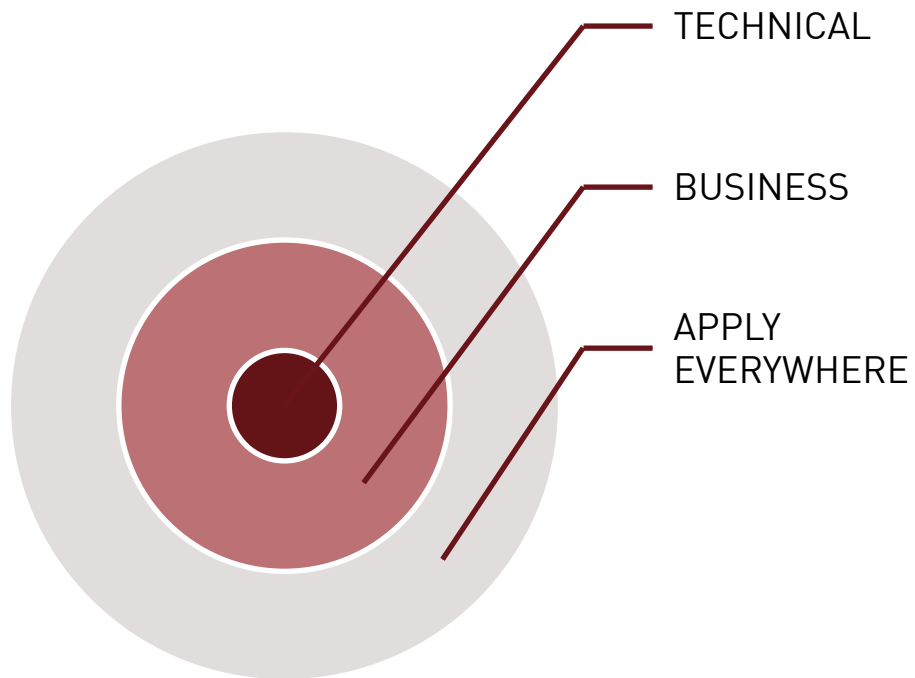
Platform Engineering – Technical Monitoring



A network diagram consisting of approximately 15 nodes of varying sizes, each with a dark grey center and a lighter grey outer ring. The nodes are interconnected by thin grey lines. A specific path of four nodes is highlighted with thick teal lines, starting from the bottom-left node, moving to the top-center node, then to the middle-right node, and finally to the top-right node. The text "OBSESSED WITH DATA" is overlaid on the network.

OBSESSED WITH DATA

**OBSESSED WITH DATA
MONITORING LEVELS**



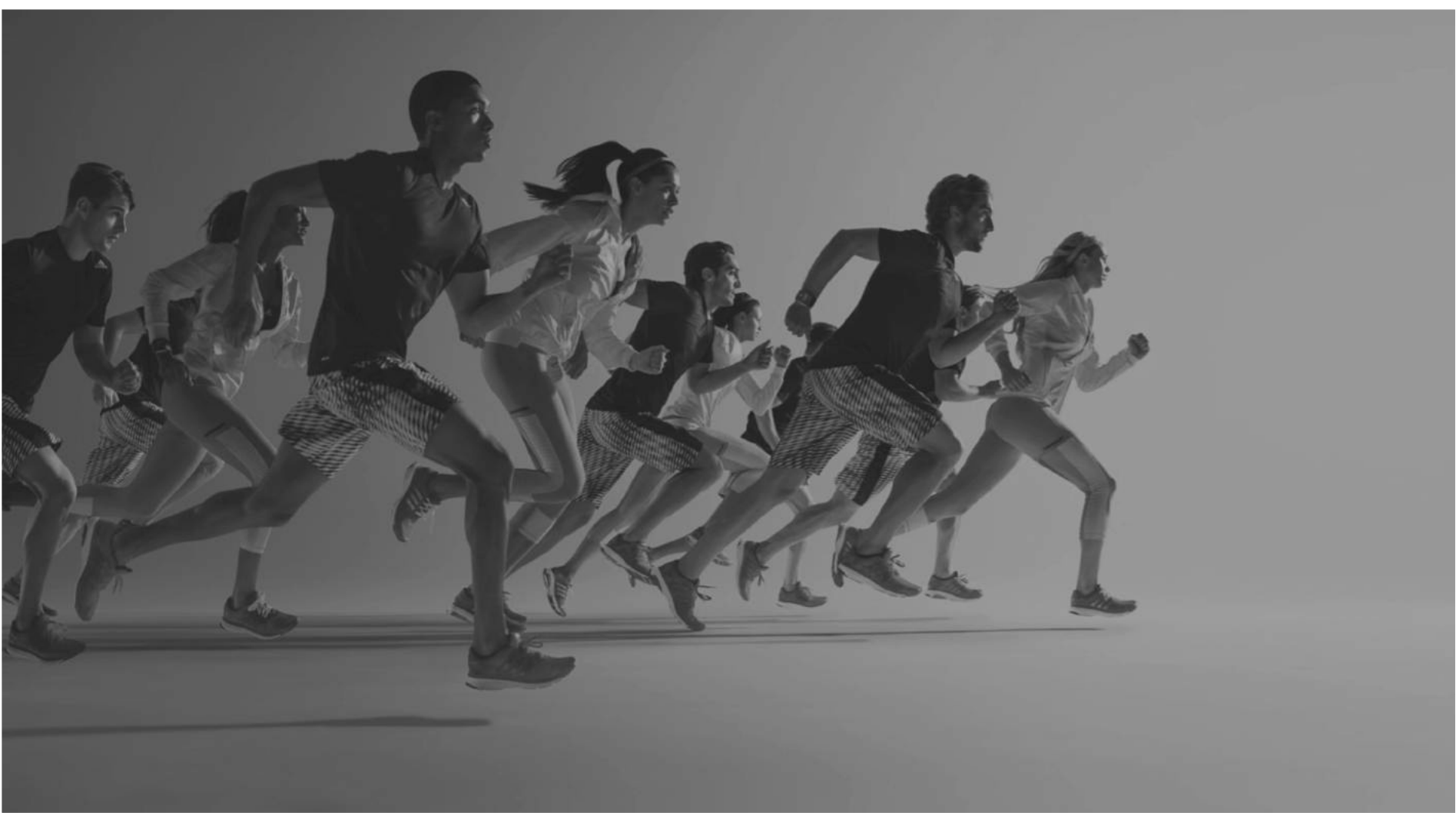
A LITTLE BIT OF CONTEXT

- Prometheus monitoring Kubernetes clusters
- Millions of time series
- Tens of apps
- Monitoring of the cluster itself
- Growing usage!!



**TEAMS CAN'T CRASH YOUR PROMETHEUS
IF YOU RUN NO PROMETHEUS**

CENTRAL STORAGE GLOBAL VIEW





cortex







Thanos



VICTORIA
METRICS



THE WAY
TO THE FUTURE

ASF

TIBCO

SCV

Detention

STATUS →

POI

CPU usage

Memory usage

Bytes per sample

SINGLE TENANT

SETUP

Influx: 6vCPU 26GiB

Thanos: 6vCPU 26GiB

Victoria-metrics: 6vCPU 26GiB

SETUP

Avalanche

Metric count: 50000

Series count: 10

500K TS // 15S
33.3K SAMPLES/S

	InfluxDB	Thanos	VictoriaMetrics
CPU	4.04 cores	1.23 cores	0.41 cores
Memory	23.74 GiB	9.1 GiB	7.3 GiB
Bytes / sample*	4.76 B	4.71 B	0.89 B

1.5M TS // 15S
100K SAMPLES/S

	Thanos	VictoriaMetrics
CPU	4.01 cores	0.86 cores
Memory	21 GiB	8.93 GiB
Bytes / sample*	4.72 B	0.91 B

MULTI TENANT

SETUP

Cortex: 2x Distributor + 4x Ingester

M3DB: 7x Nodes

VictoriaMetrics cluster: 2x Insert + 4x Storage

VictoriaMetrics single: 2x Nodes

2 teams ingesting: ~430k and ~900k TS

~430K + ~900K TS // 15S
~88K SAMPLES/S

	Cortex	M3DB	VictoriaMetrics cluster	VictoriaMetrics single
CPU	1.08 cores	3.63 cores	1.14 cores	0.49 cores
Memory	24.15 GiB	68.47 GiB	13.4 GiB	11.94
Bytes / sample*	3.68 B	3.78 B	1.20 B	1.20 B
DynamoDB capacity	1133 WCU			

TAKEAWAYS



**SHOOT YOUR
QUESTIONS!**

THANK YOU