adidas

REMOTE WRITE STORAGE WARS

ALEJANDRO CESPEDES

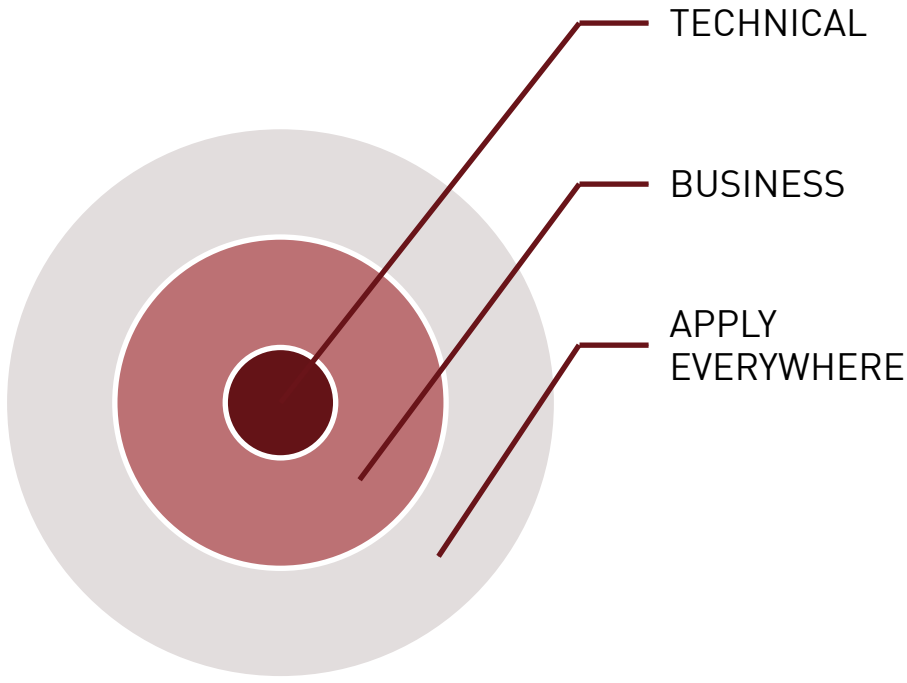
WHO AM I?

ALEJANDRO CÉSPEDES

Platform Engineering – Technical Monitoring

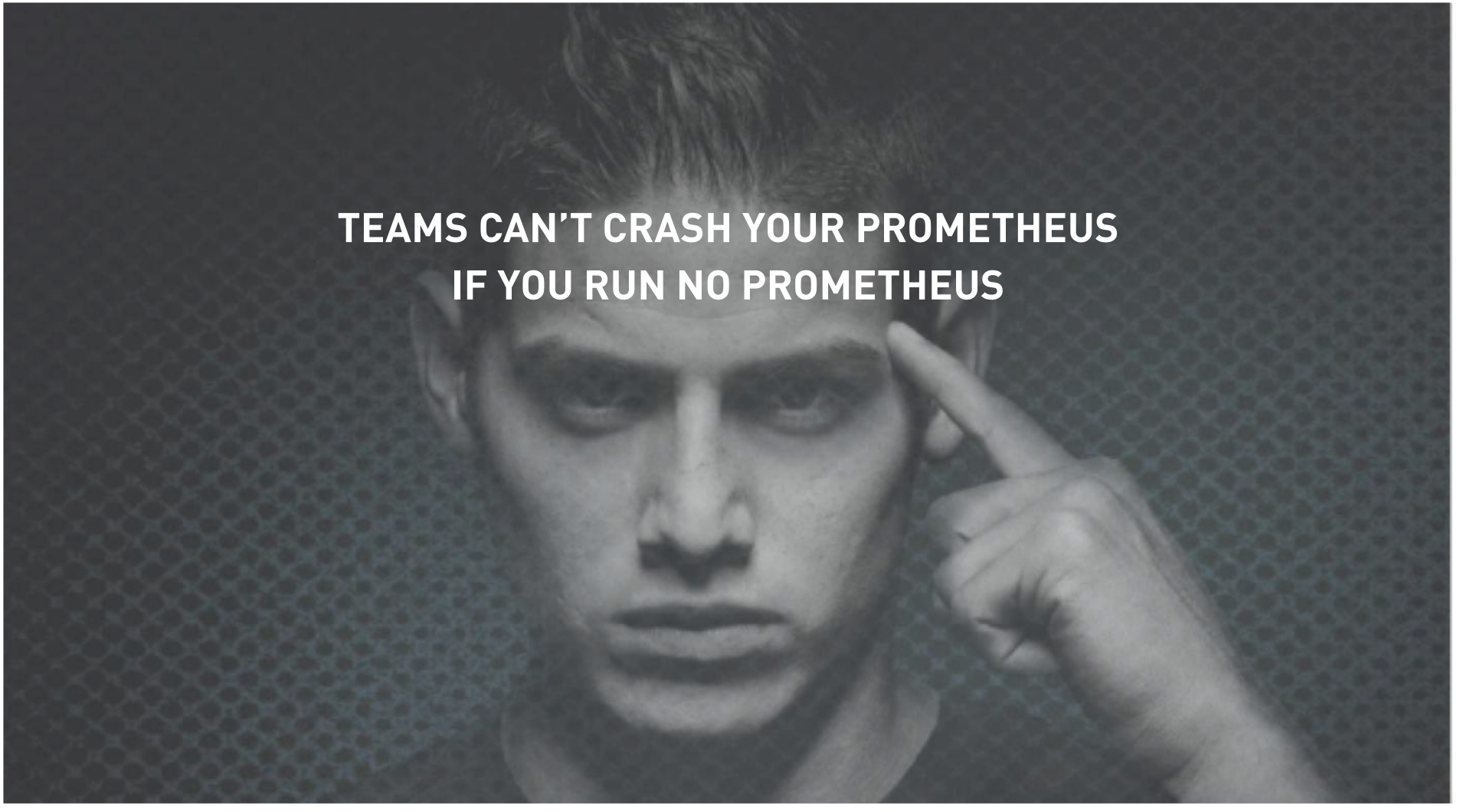

OBSESSED WITH DATA

OBSESSED WITH DATA MONITORING LEVELS

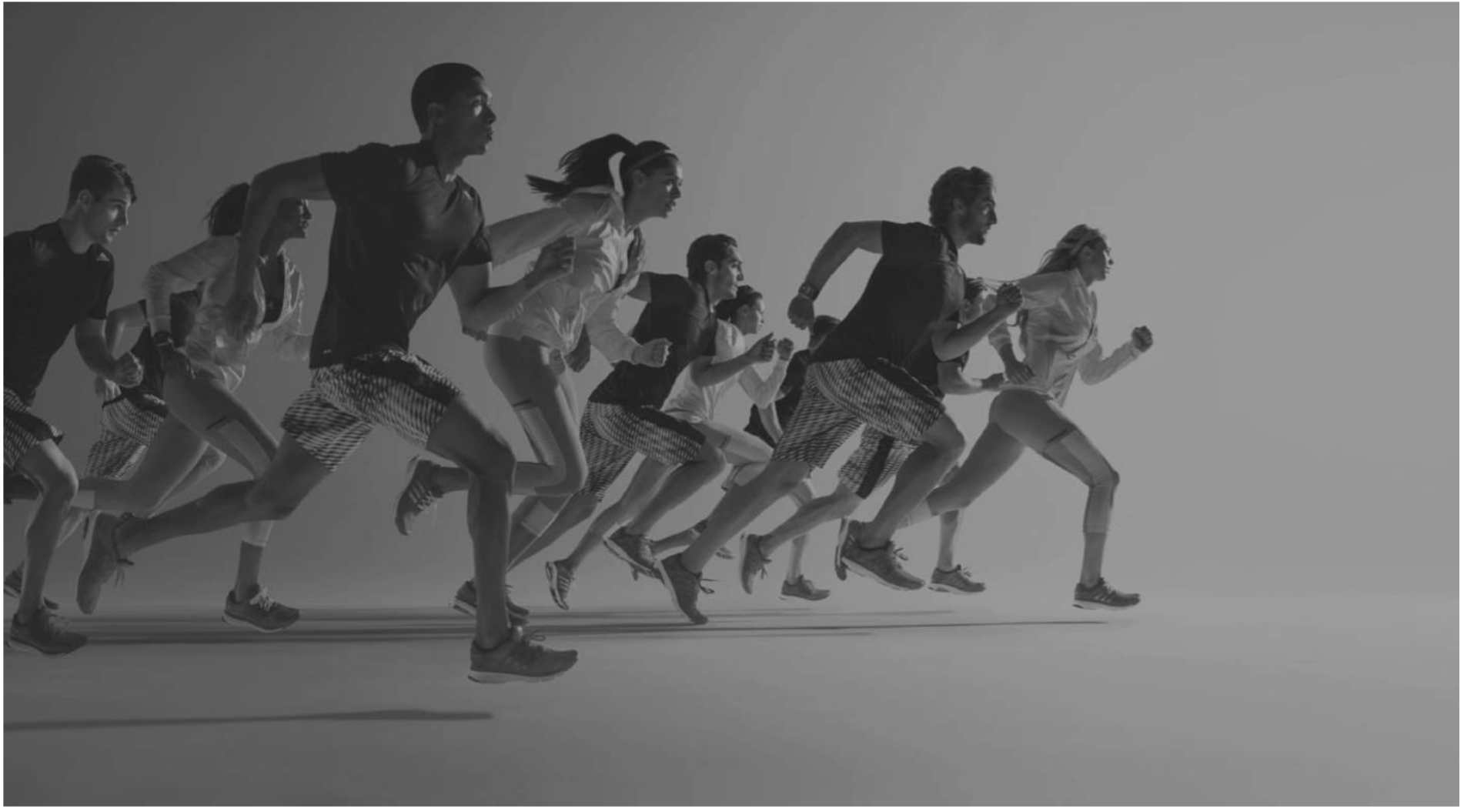


A LITTLE BIT OF CONTEXT

- 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


ASF
TIBCO
SCV

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