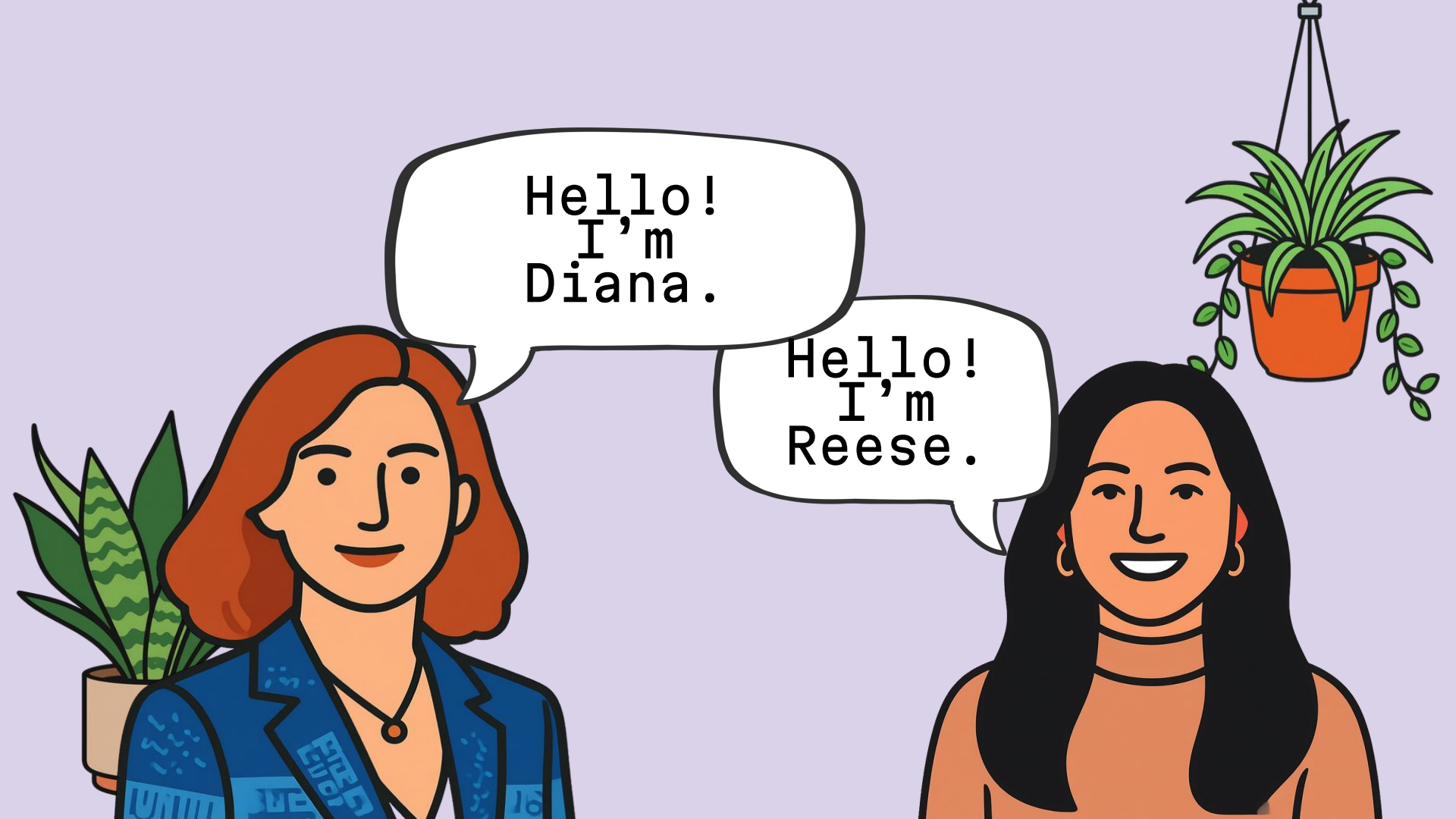
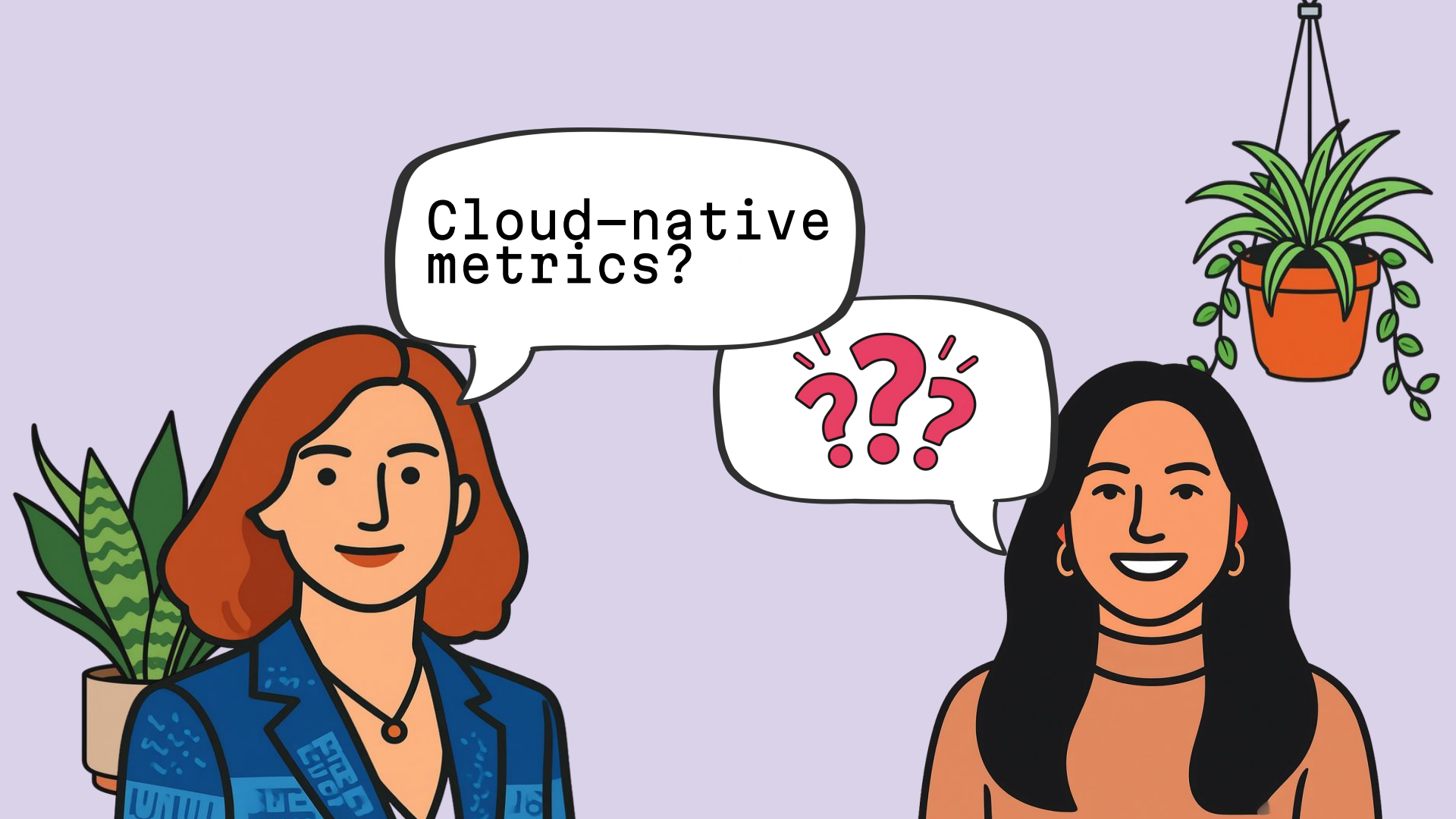
An Ode to Metrics

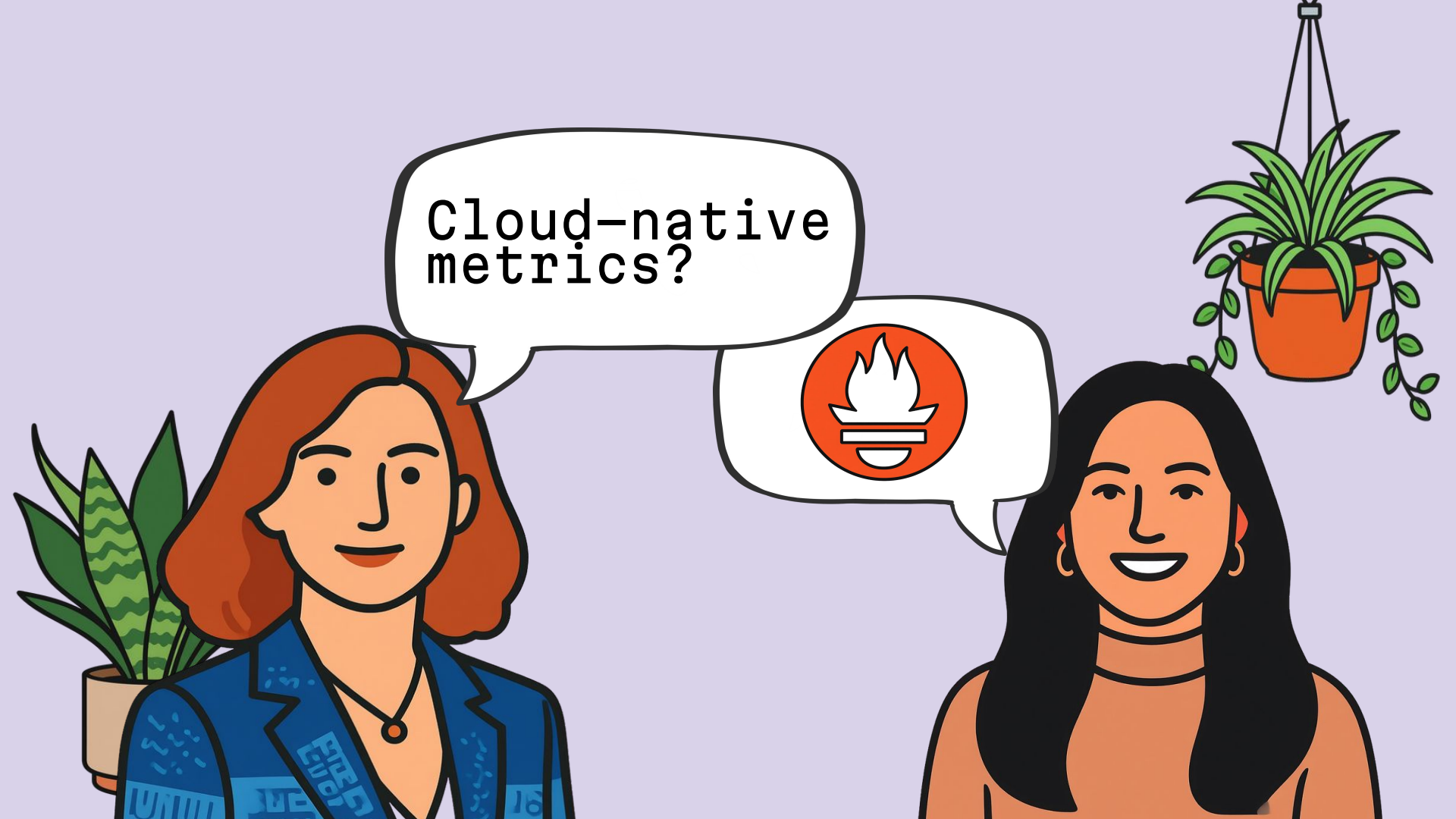
Is OpenTelemetry Moving Away From Prometheus?

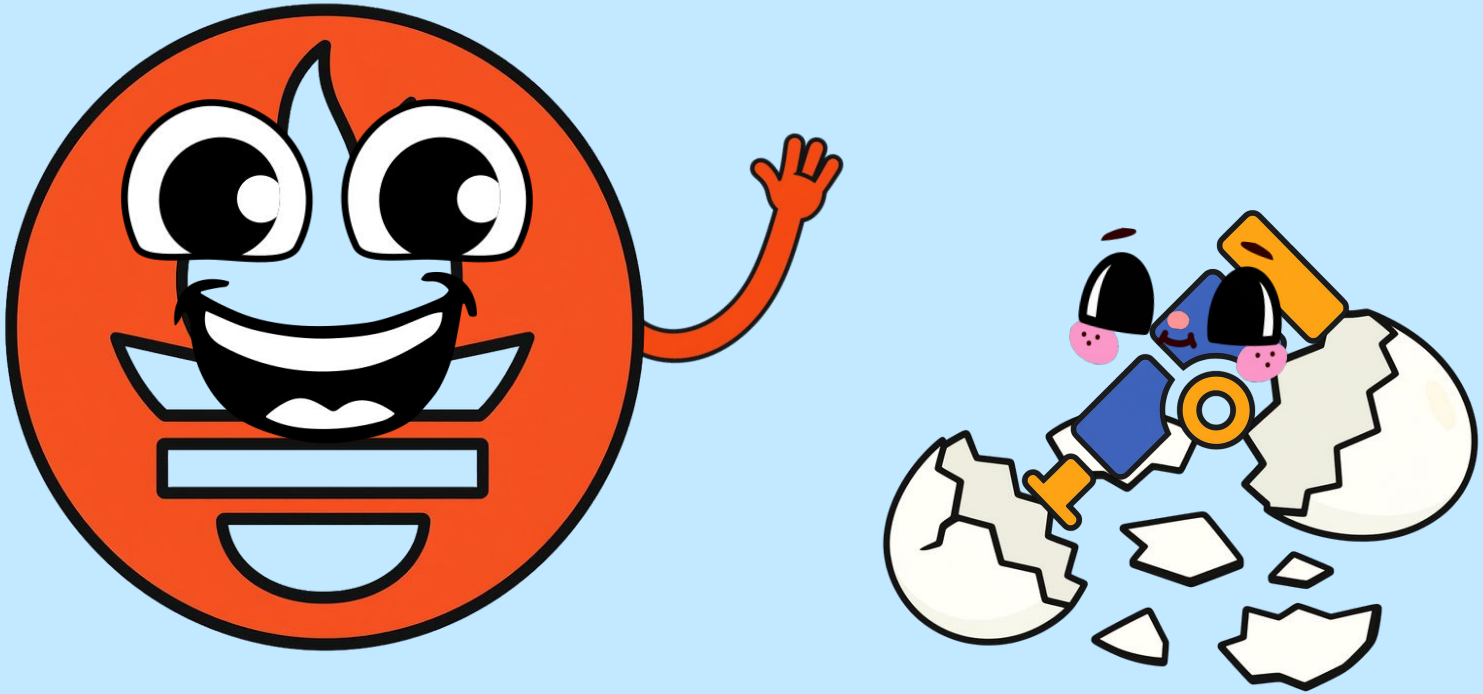


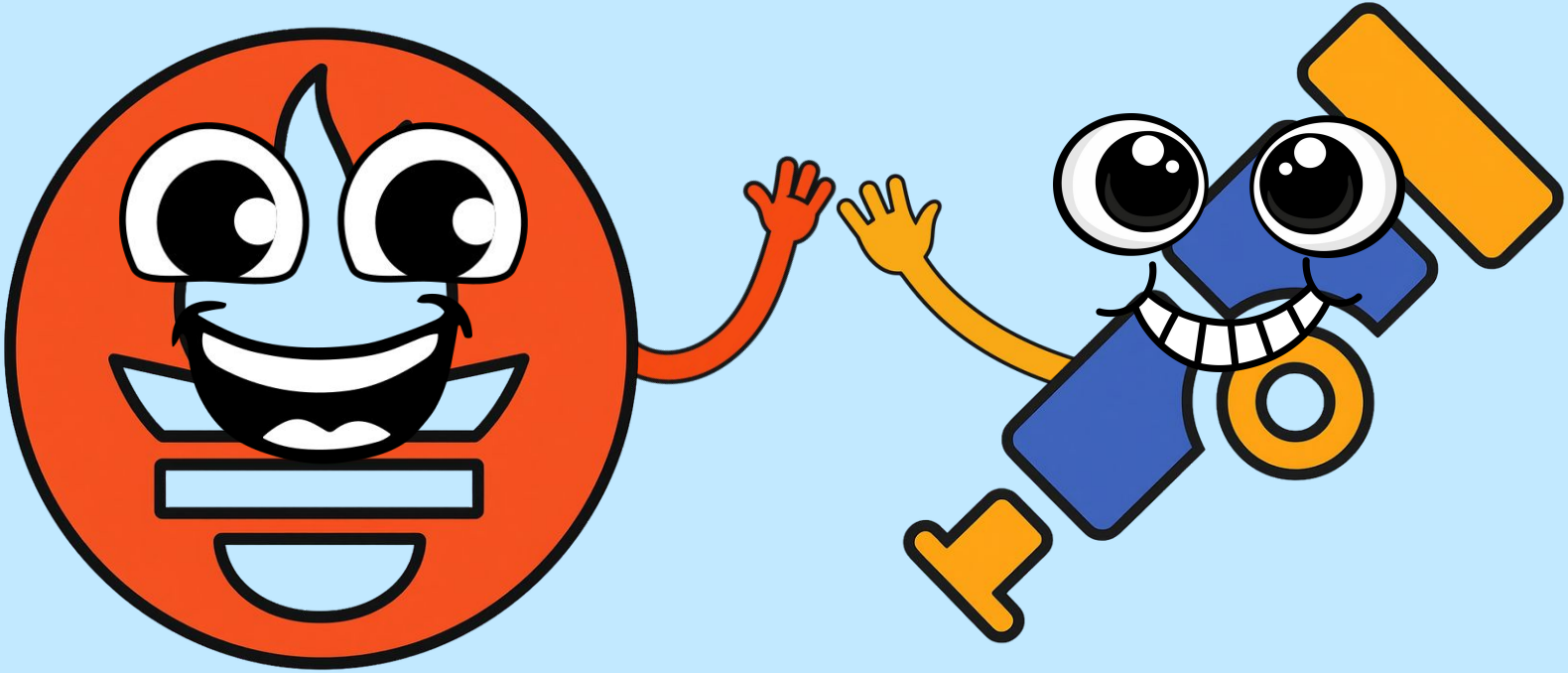
Diana Todea (VictoriaMetrics) & Reese Lee (New Relic)

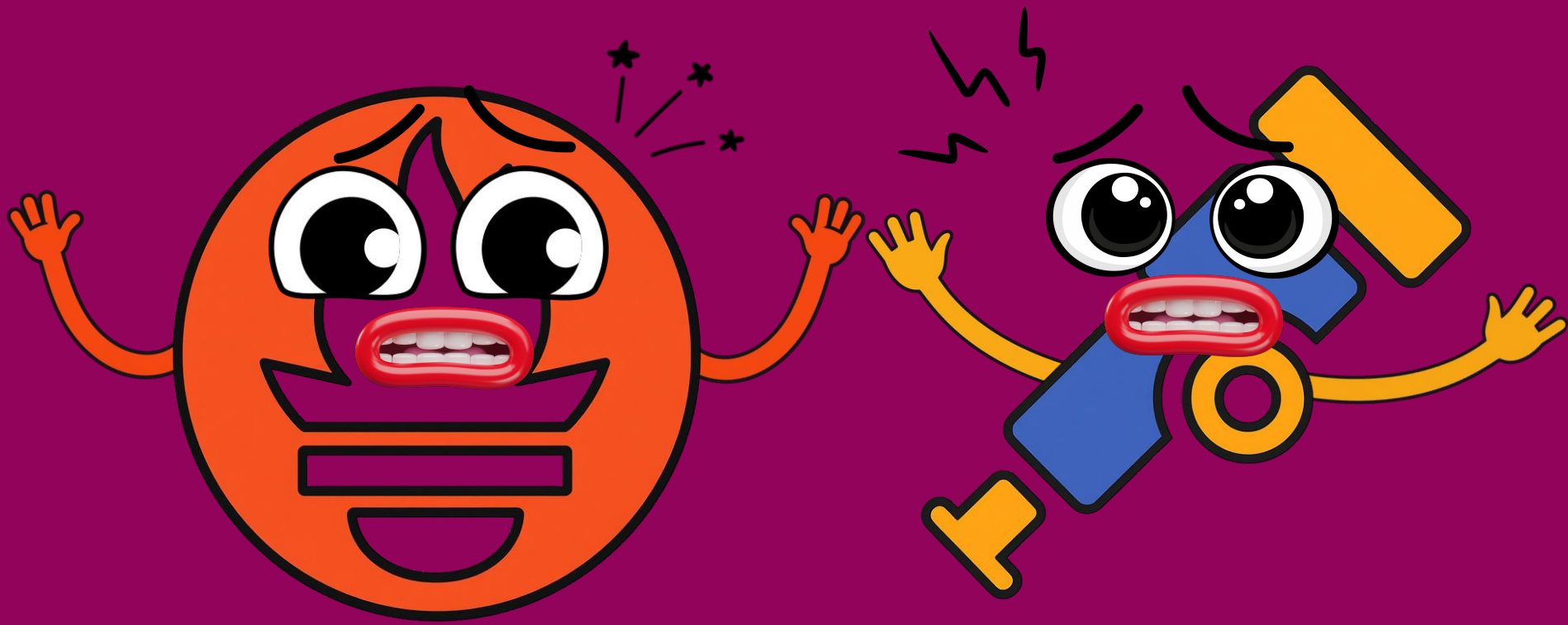

Hello!
I'm
Diana.
Hello!
I'm
Reese.


Cloud-native metrics?
???

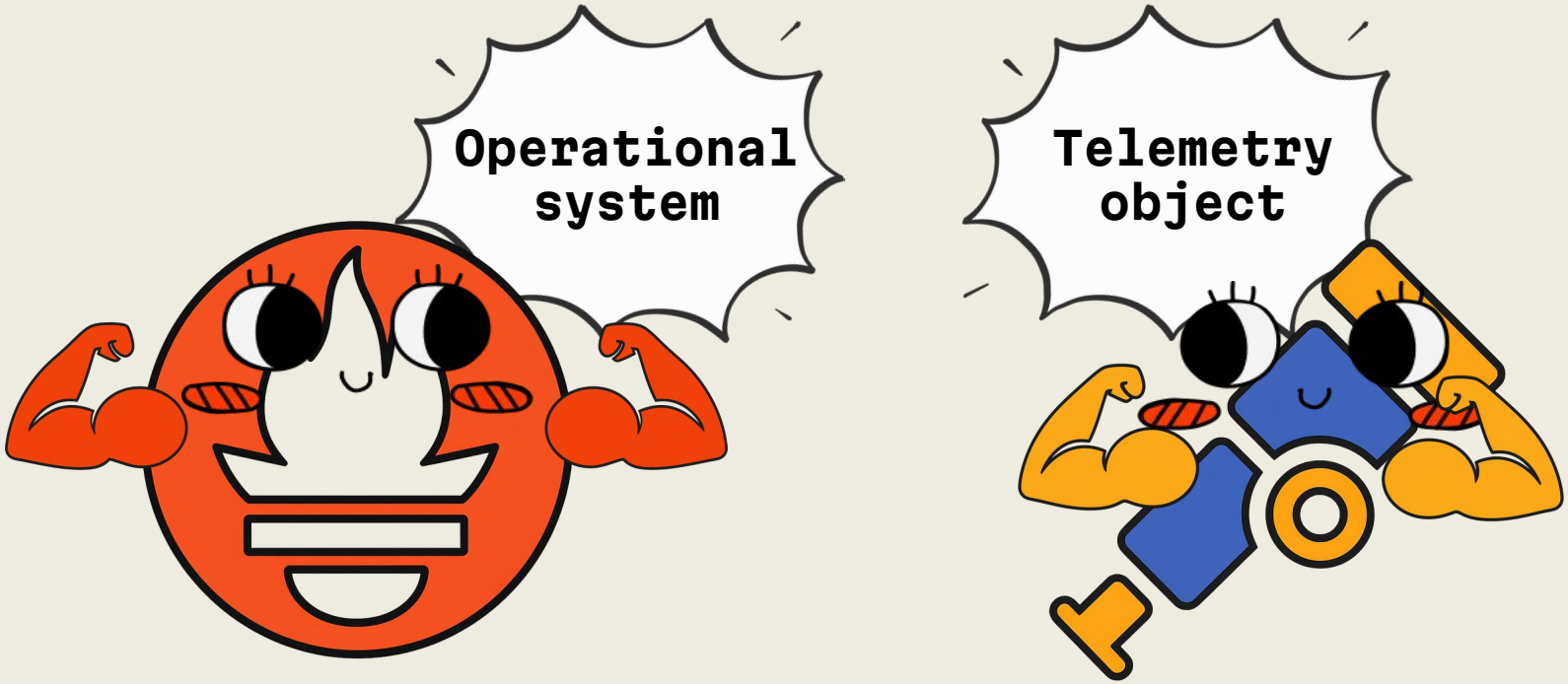

Cloud-native metrics?





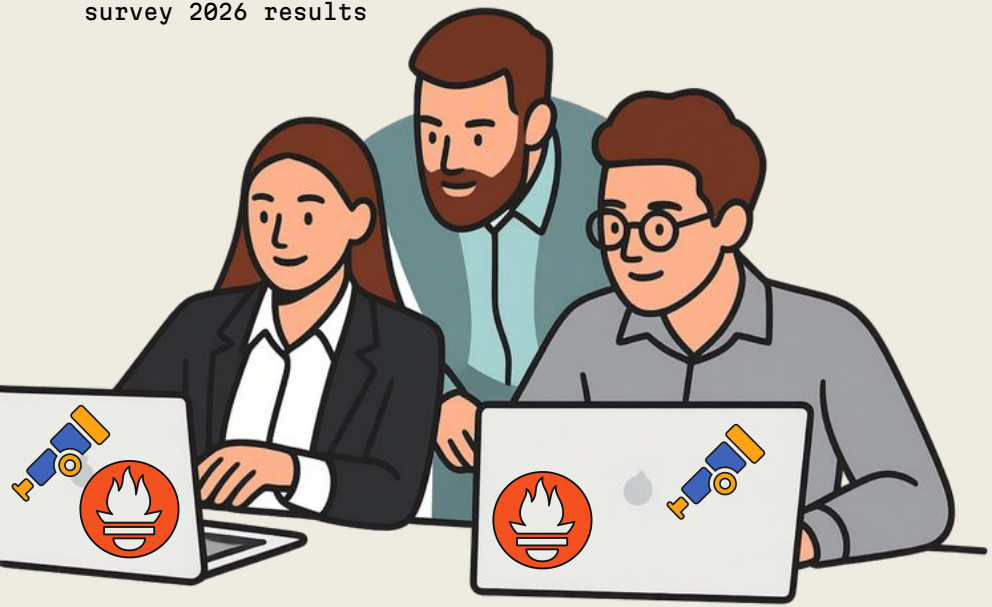


One ecosystem, two mental models



Many teams use both Prometheus and OTel

Prom x OTel interoperability survey 2026 results



- Infrastructure leans toward Prometheus
- Applications lean toward OTel
- Pipelines are mostly vanilla

Using both together has gotten easier!

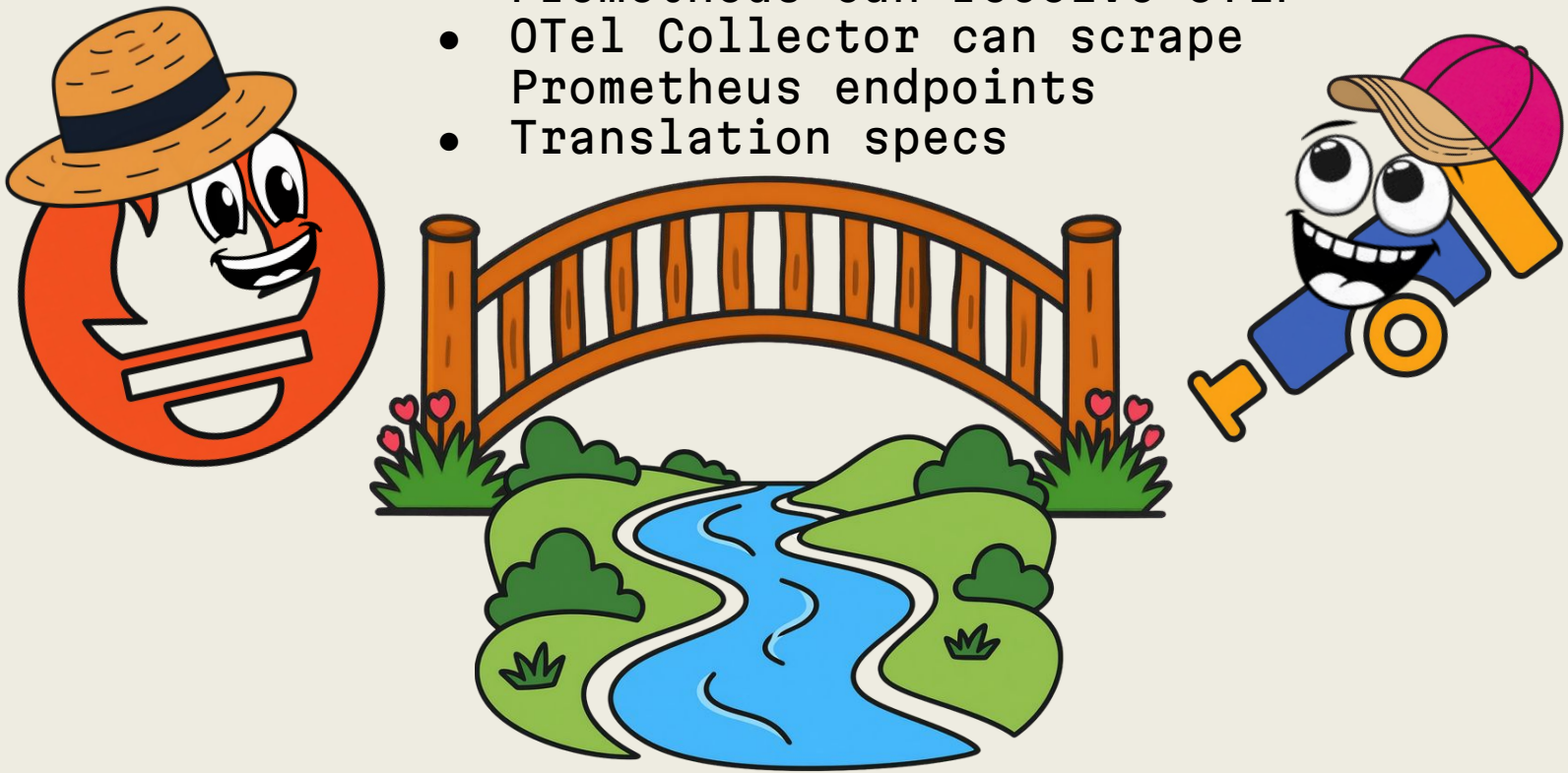


The Target Allocator data flow



Interoperability

- Prometheus can receive OTLP
- OTel Collector can scrape Prometheus endpoints
- Translation specs

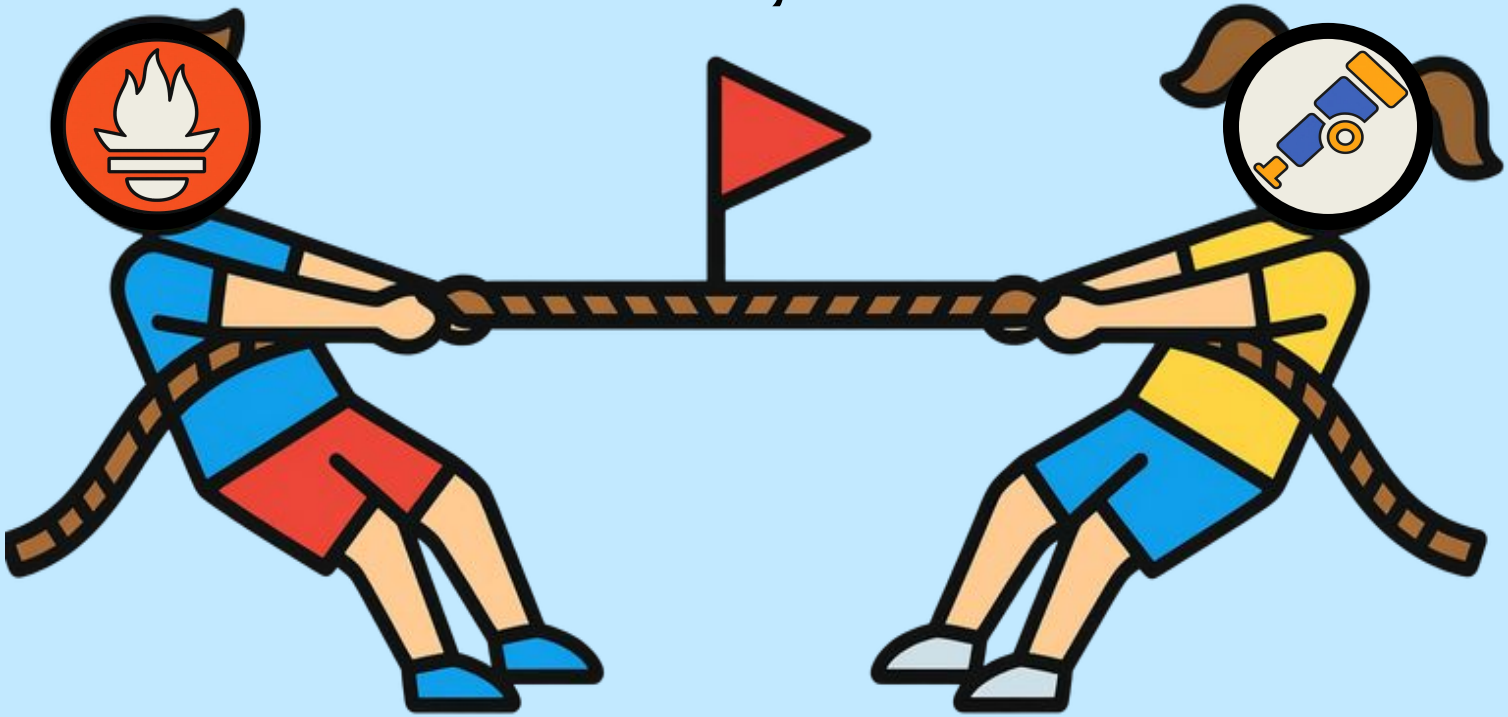


Area	Interoperability status
Pull vs. push	Works, with costs
Histograms	Strong alignment, some gaps
Temporality	Important and active
Naming and semantic conventions	Converging
Resource attributes	Structural mismatch; improving
Exemplars	Works, but asymmetric



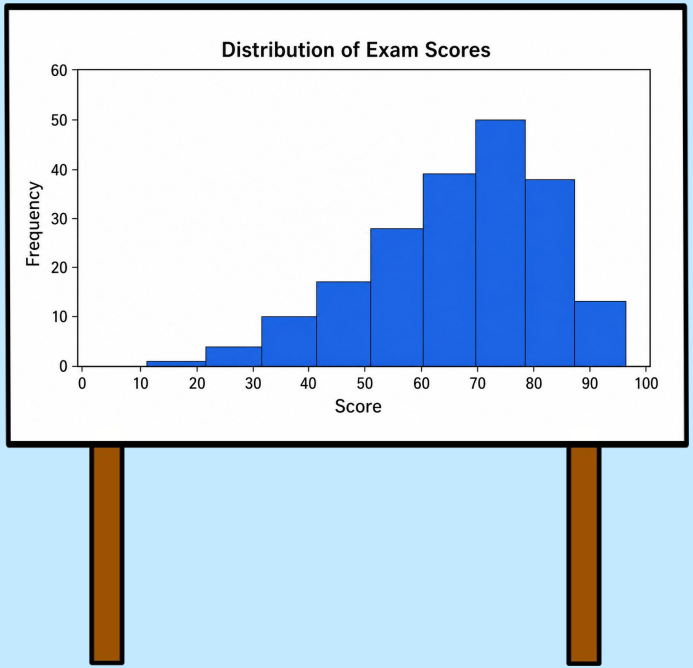
Area 1: Pull vs Push

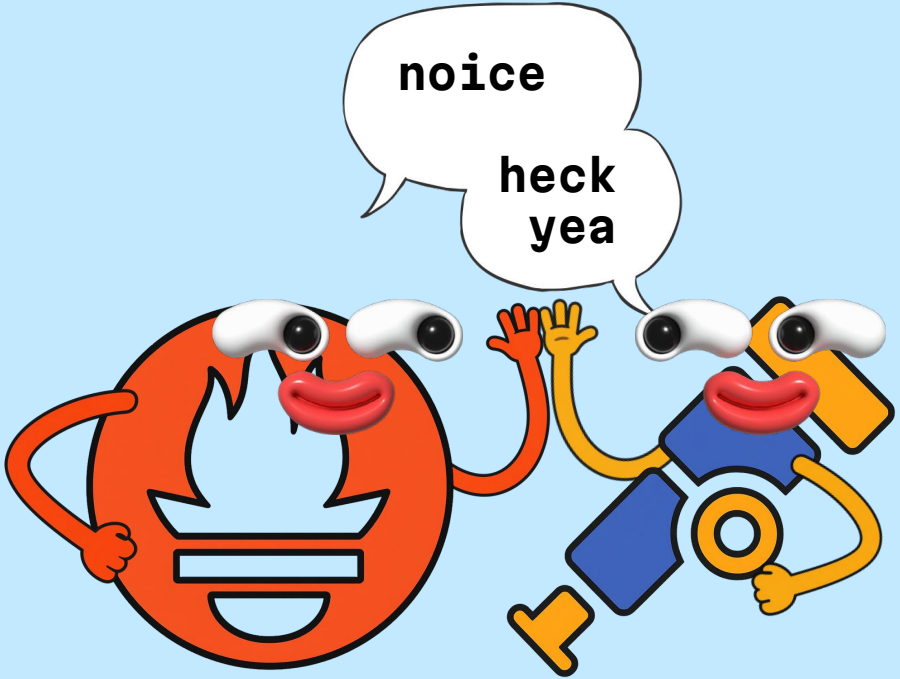
Status: Works, with costs.



Area 2: Histograms

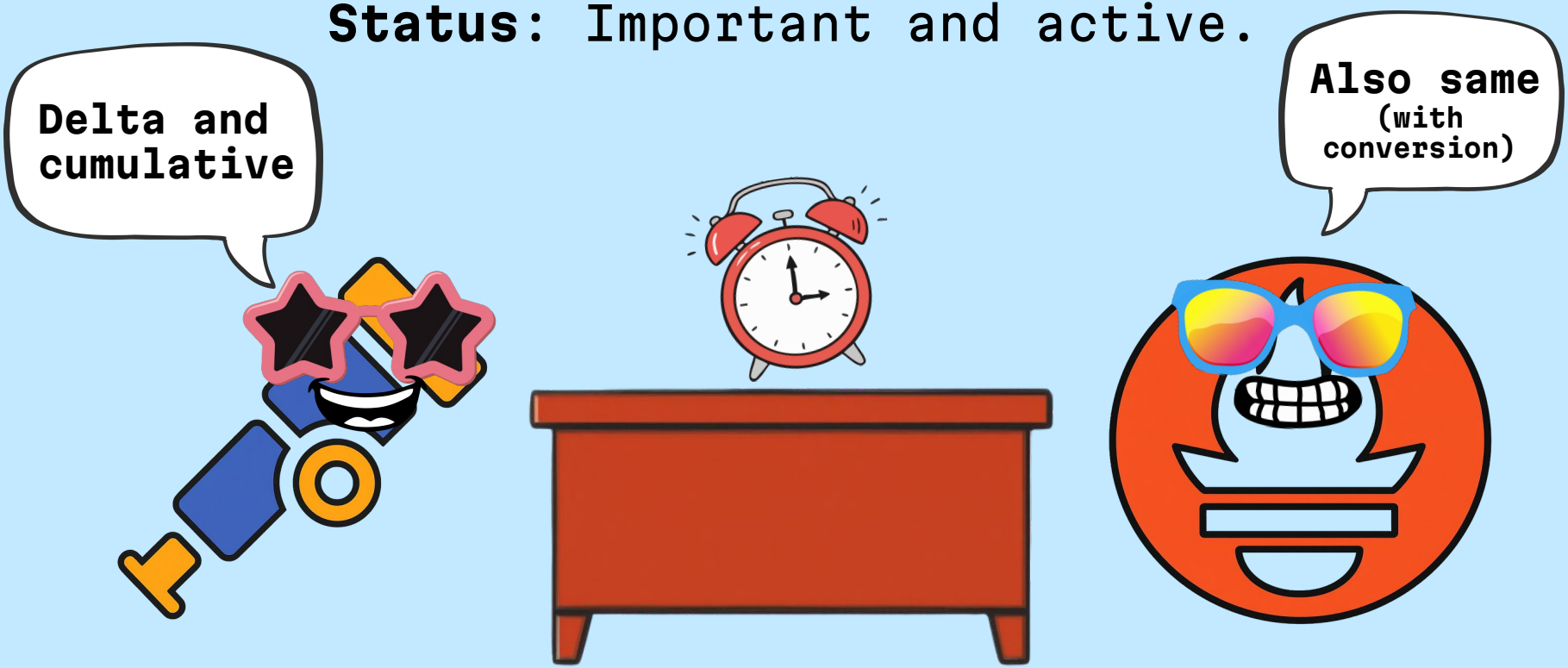
Status: Closest to done.





Area 3: Temporality

Status: Important and active.



Area 4: Naming and semantic conventions

Status: Converging.



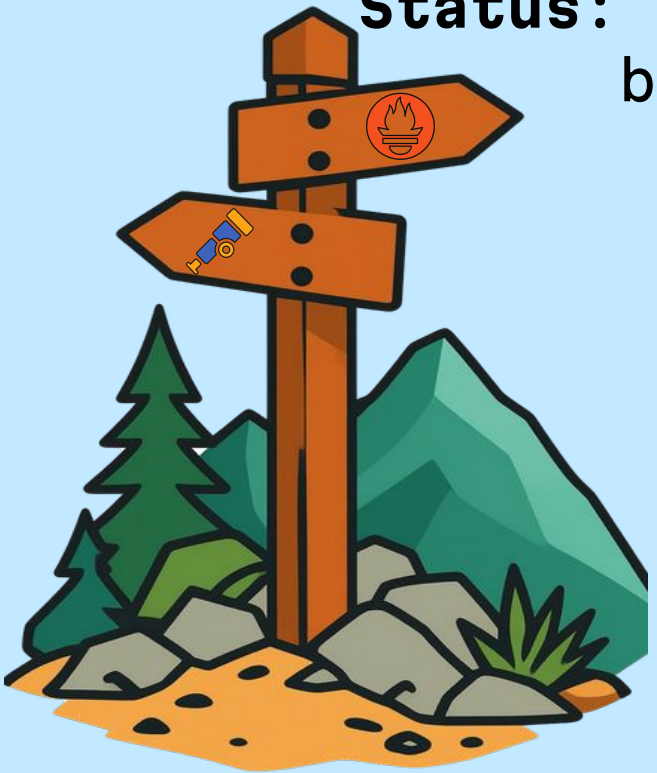


Translation strategy	Dot handling	Suffix added?	Resulting metric name example
UnderscoreEscapingWithSuffixes	. _	Yes (_seconds)	http_server_request_duration_second
UnderscoreEscapingWithoutSuffixes	. _	No	http_server_request_duration
NoUTF8EscapingWithSuffixes	Preserves dots (.)	Yes (_seconds)	http.server.request.duration_second
NoTranslation	Preserves dots (.)	No	http.server.request.duration

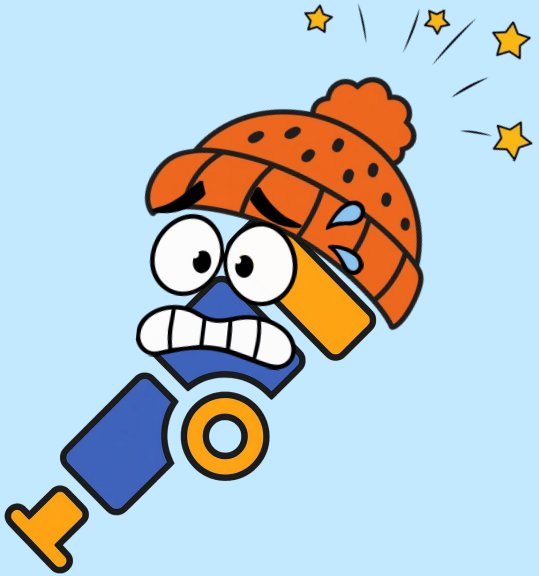


Area 5: Resource Attributes

Status: Structural mismatch, but improving.

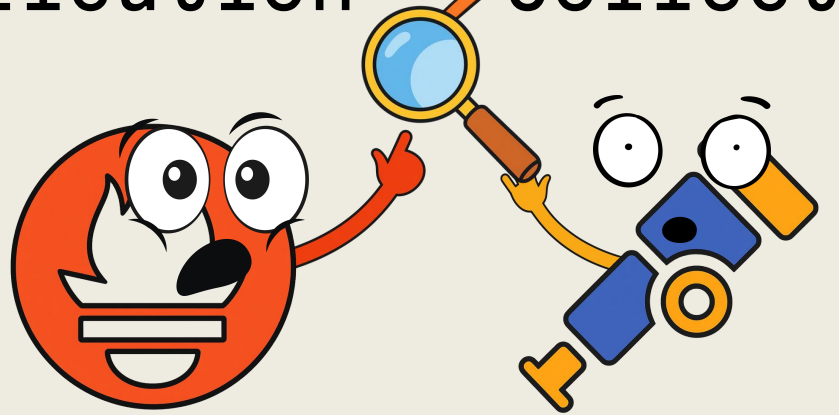






What does it all mean?

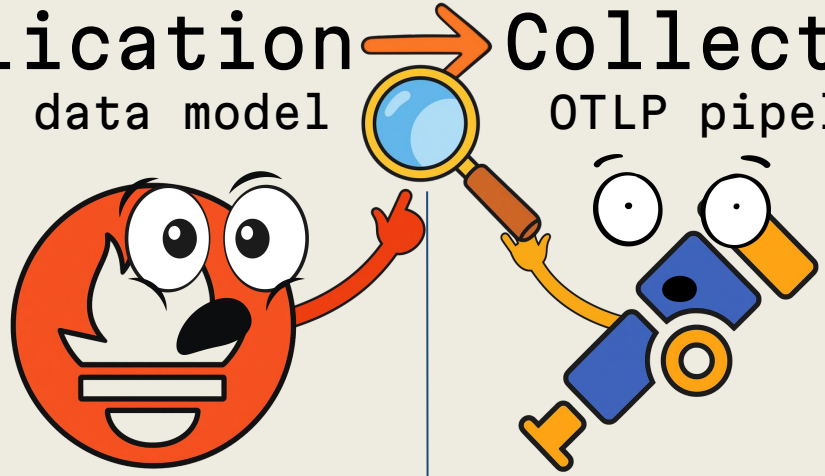
Application → Collector → Prometheus



What does it all mean?

Application → Collector → Prometheus

OTel data model | OTLP pipeline | Prometheus model



Into the Collector
OTLP in, OTel model
Prom scrape → OTLP
delta → cumulative
attrs added or dropped

Into Prometheus
names normalized
_total, unit suffixes
resource → target_info
histogram mapping

Where is contribution needed most?

FOCUS: Protocols, data models, and interoperability

- Delta and start timestamps.
- Remote Write 2.0 stability.
- OpenMetrics 2.0 adoption during the RC window.
- Resource attributes and entities.



Where is contribution needed most?

FOCUS: Implementation, tooling, and community

- Collector and SDK consistency.
- Bringing Prometheus building blocks into the Collector.
- Documentation and user research.
- Semantic conventions as rendered in Prometheus.



The winner is...

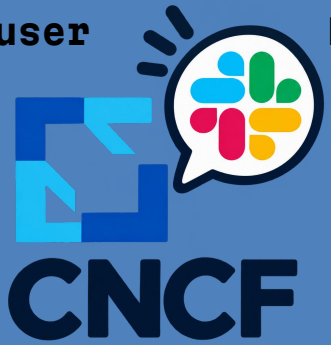




Have ideas or feedback?



#otel-prometheus	Prometheus-OTel interoperability
#otel-specification	Data model, temporality, specifications
#otel-collector	Receivers, exporters, pipelines
#otel-semantic-conventions	Metric naming, attributes
#otel-sig-end-user	End-user feedback and use cases



THANK YOU!





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