

The Future of Observability is Open Iceberg, OpenTelemetry, and ClickHouse®

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Enterprise Support

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“Observability begs to be open”

- Me



A brief history

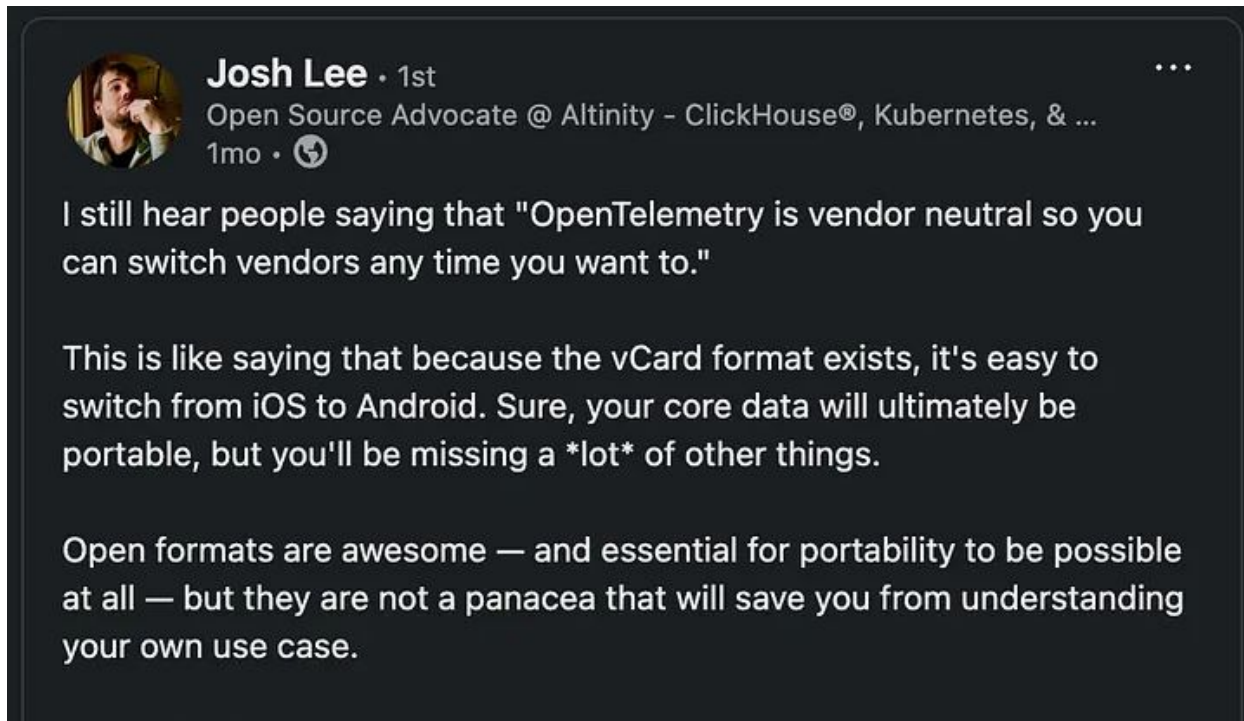
I ❤️ OTel

Uncovered: The Hard Truth about OTel's Vendor Neutrality


Adriana Villela (Dynatrace)
Josh Lee (Altinity)



How did we get here??



Uncovered: The Hard Truth About OpenTelemetry's Vendor Neutrality



Can you take it
with you?

Open Instrumentation

Open Pipelines

Open Storage

Open Instrumentation

 **Portable code artifacts!**

O11y vendors ❤️ open instrumentation too!

➡ Shifts the work of up-to-date instrumentation libraries to the community

Open Pipelines



Interoperability!

One (or more) tools for all signals



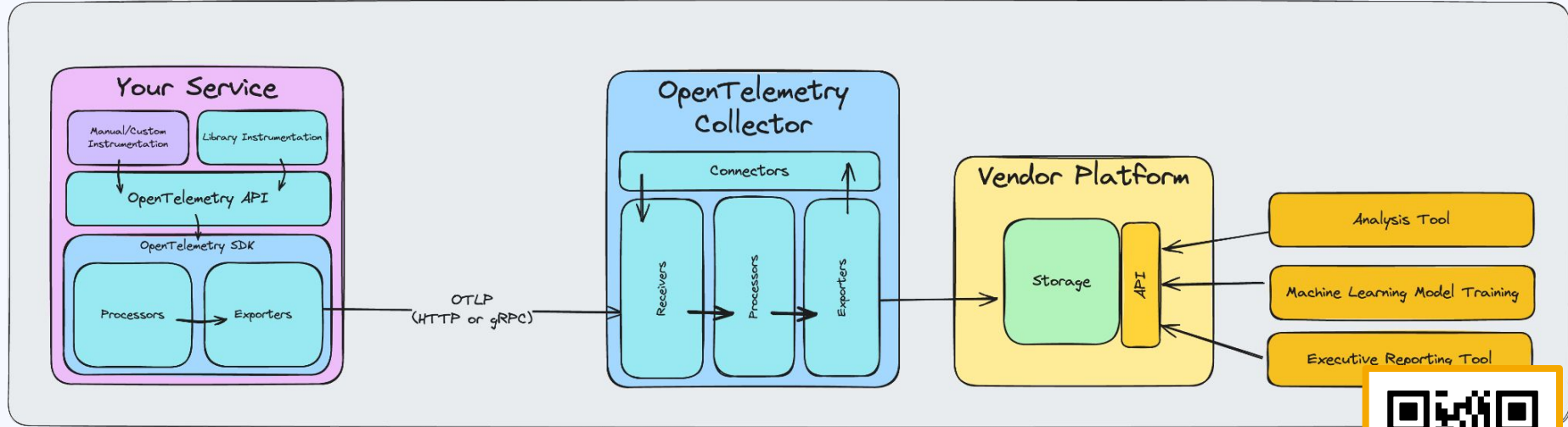
Uncovered: The Hard Truth About OpenTelemetry's Vendor Neutrality

Open Storage



Take your telemetry with you

What if...



Uncovered: The Hard Truth About OpenTelemetry's Vendor Neutrality

Open Storage



Multi-access patterns

Open Storage



Complete and total ownership

Why open matters:

Open Instrumentation

→ Take your code & artifacts with you

Open Pipelines

→ Send your telemetry to any tool

Open Storage

→ Send your telemetry to one place, use any tool

"Cool Josh, what about visualization and analysis?"

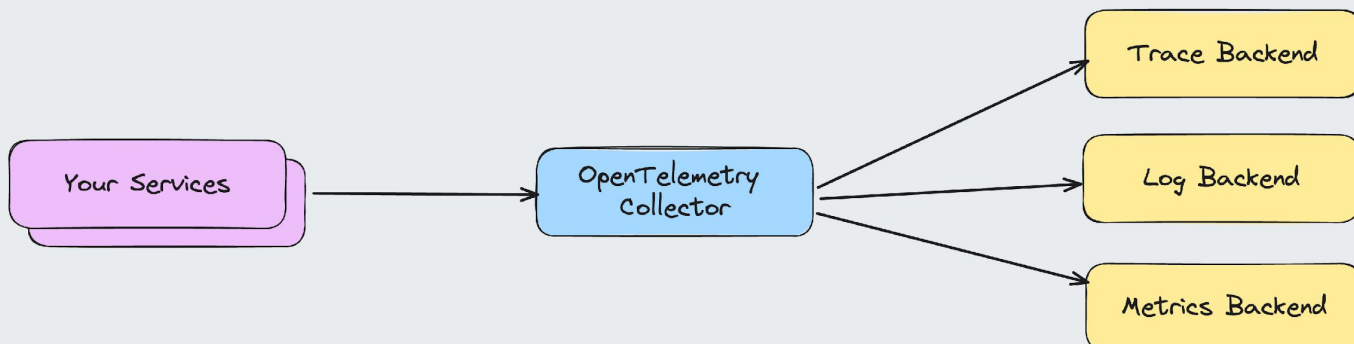


A new challenger: MCP

Hot take: the visualization layer is quickly becoming the least interesting part of observability.

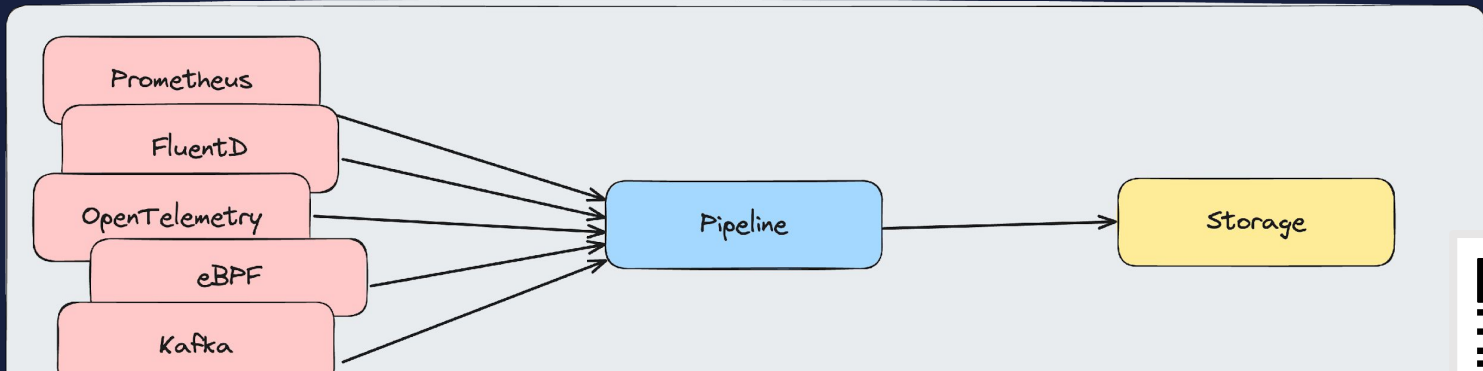
"Cool Josh, now I have three databases to secure, scale, and manage..."

How I usually start...



O11y in One: ClickHouse as a Unified Observability Datastore

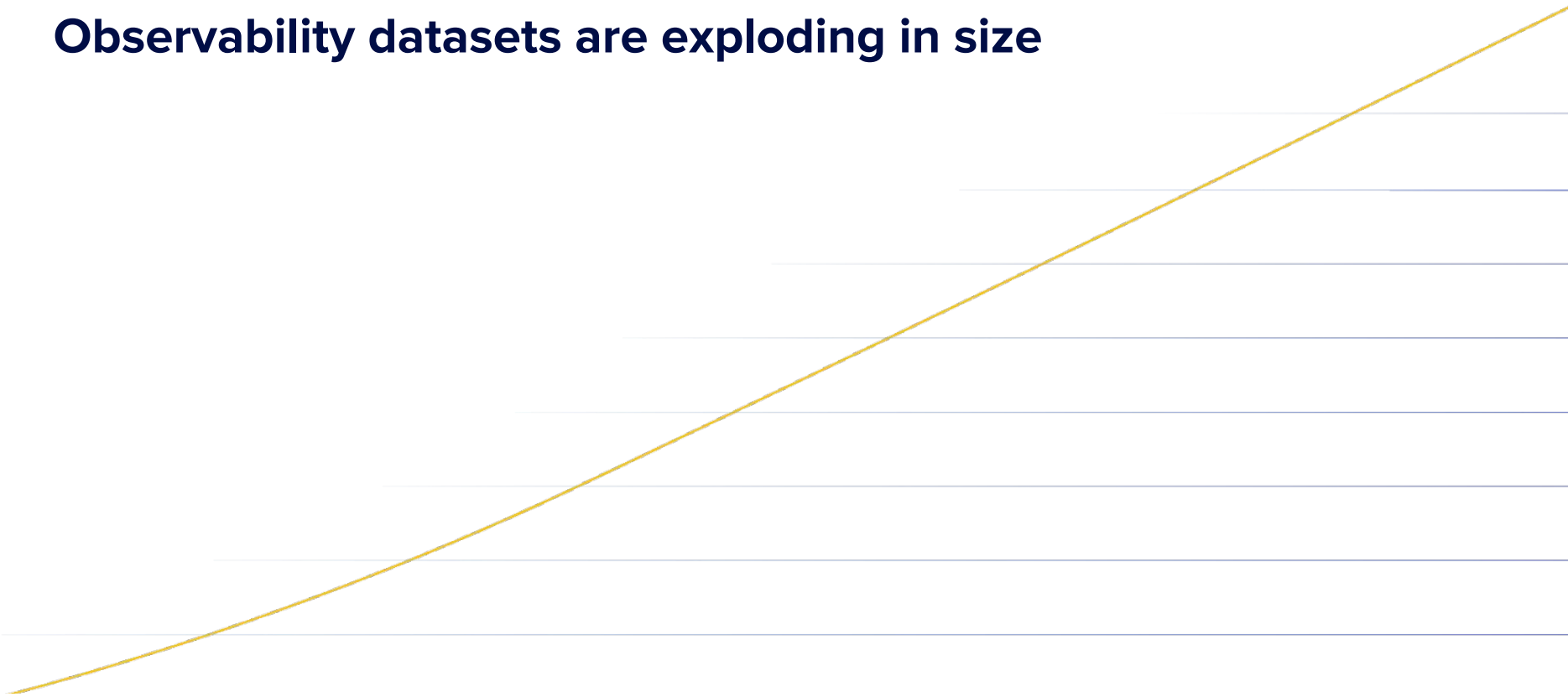
What we really need...




O11y in One: ClickHouse as a Unified Observability Datastore

"Cool Josh, what about scaling this?"

Observability datasets are exploding in size





Enter: the real-time open lakehouse

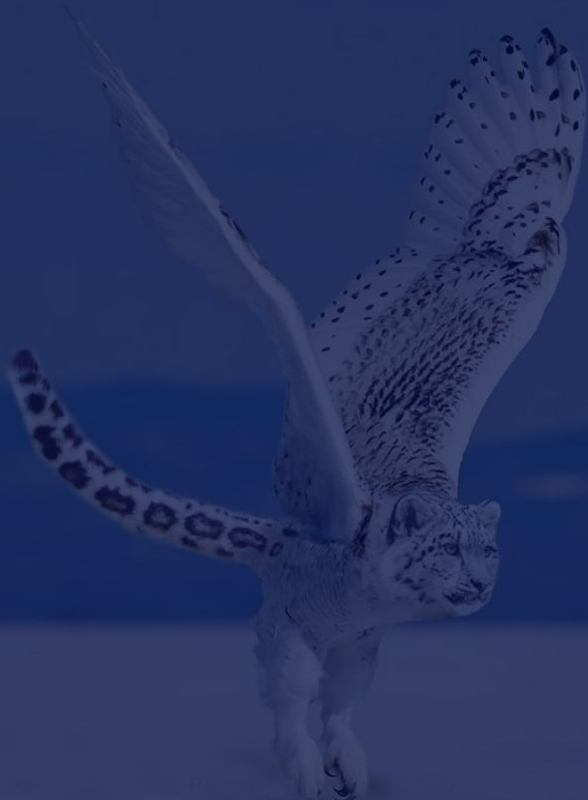
Datalakes

unlimited scale

Lakehouses

add a little structure

"... and real-time?"



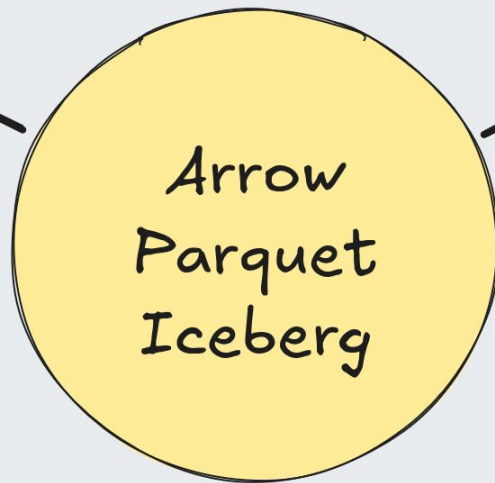
Introducing Hybrid Tables: Transparent Query on ClickHouse® MergeTree and Iceberg Data



What's the stack?

OpenTelemetry

Project Antalya



Arrow
Parquet
Iceberg

S3 Object Storage

The open lakehouse observability stack

OpenTelemetry

Vendor-neutral instrumentation, specifications, and pipelines

Apache Parquet

Open & neutral columnar data format

Apache Iceberg

Open & neutral metadata catalog (turns data into tables)

Apache Arrow

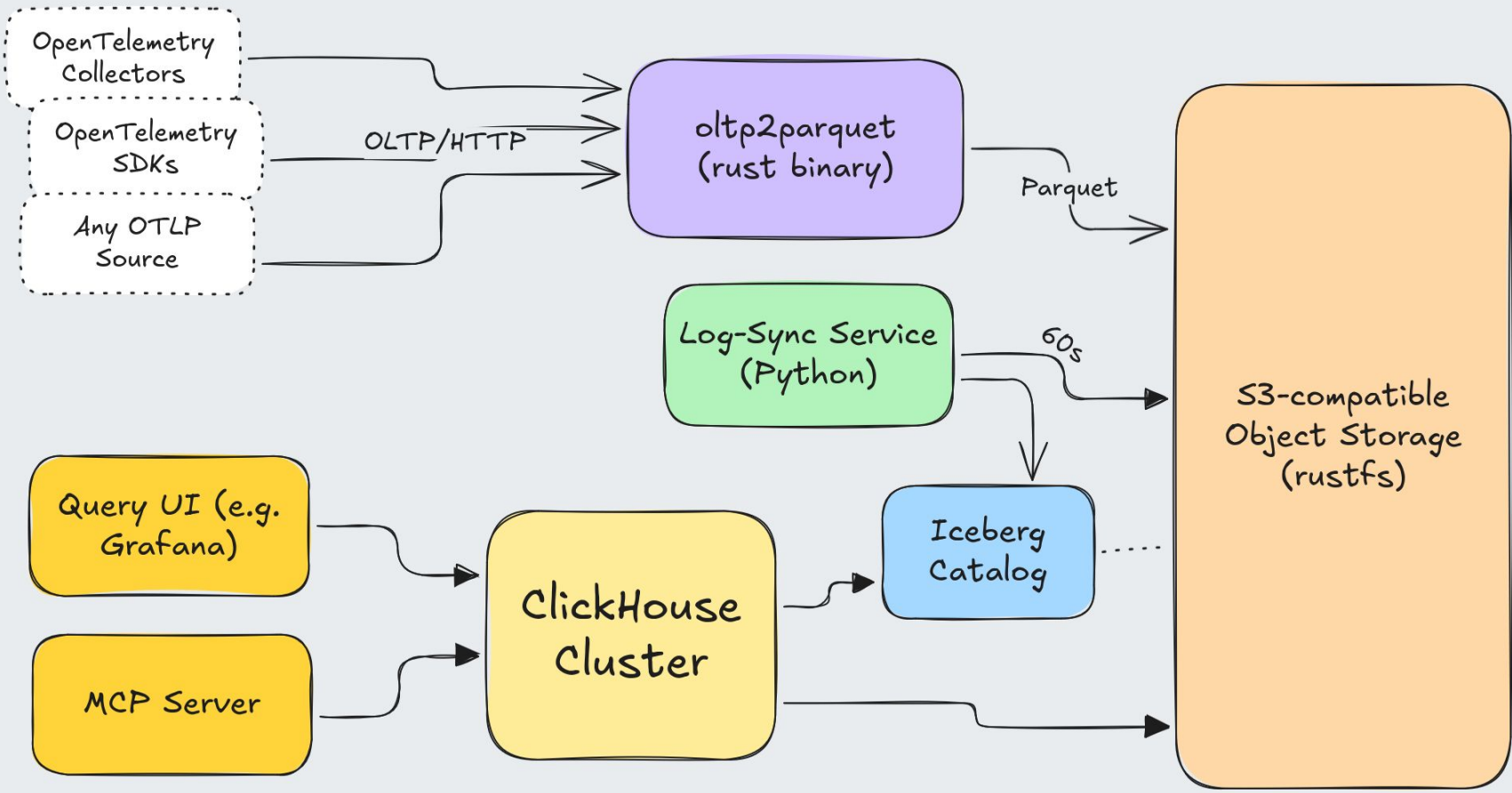
Open, neutral & performant columnar transport

Demo Time



**Just a
proof of
concept!**

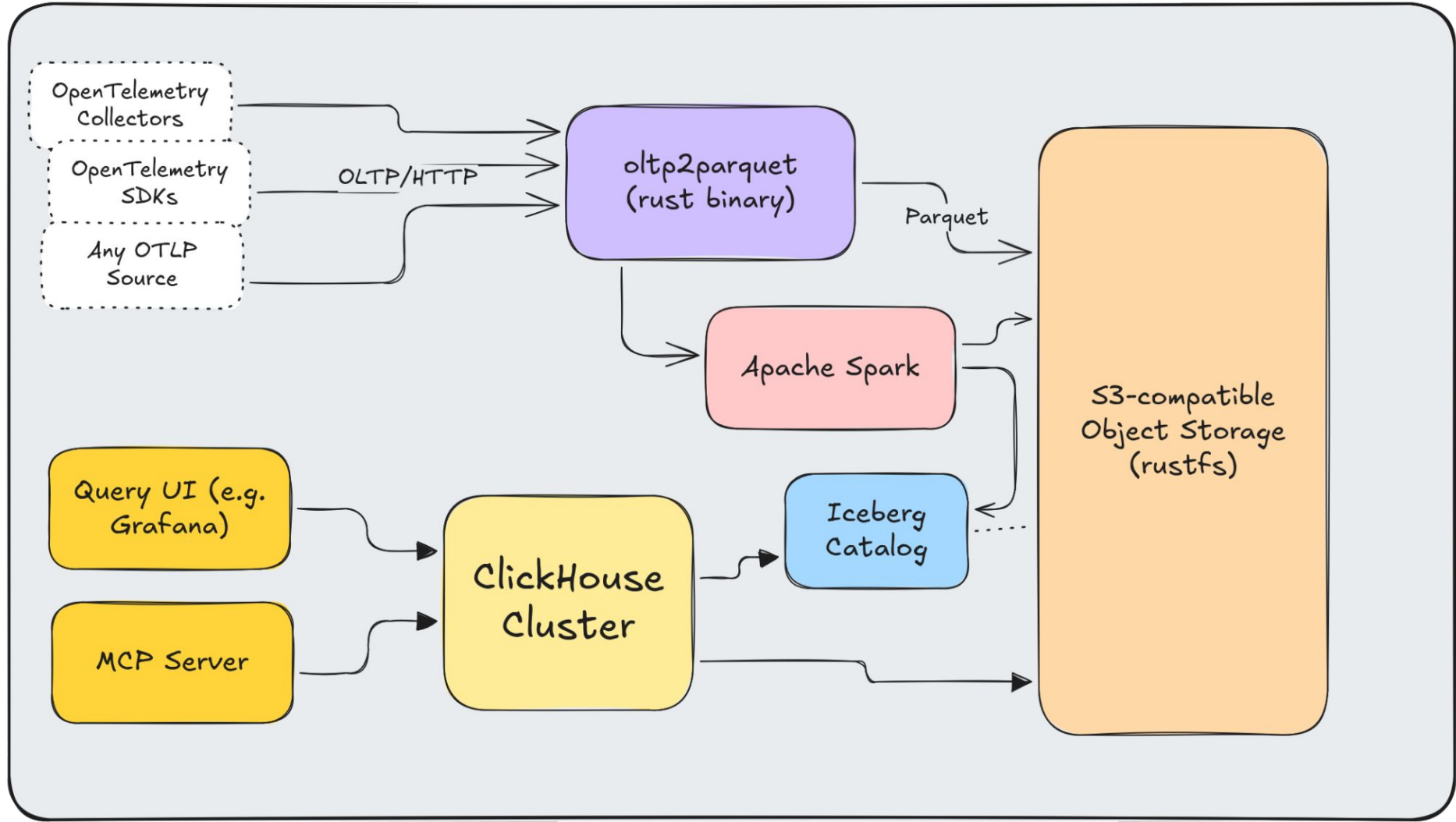
<https://github.com/Altinity/demo-otel-parquet-antalya>

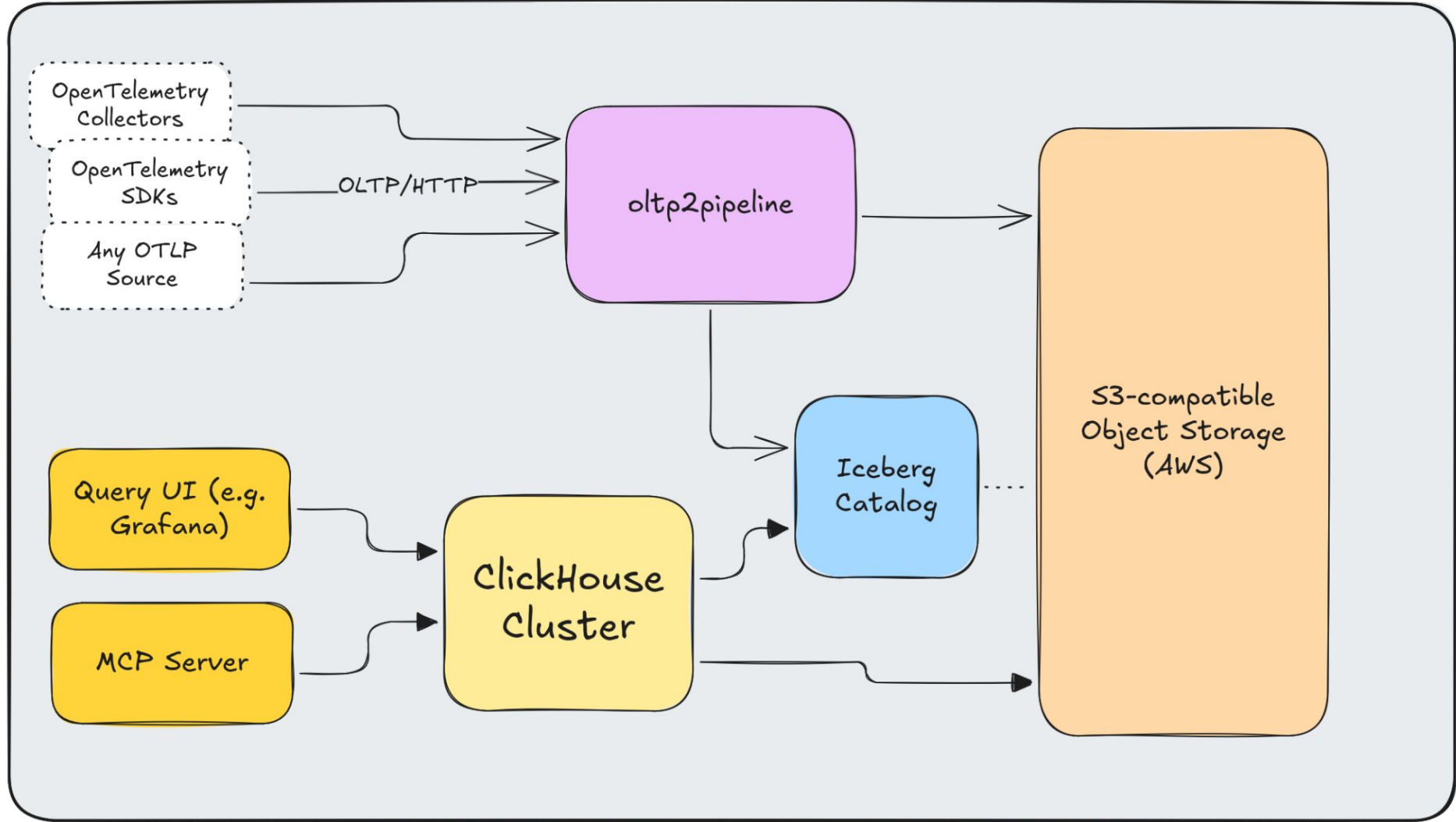


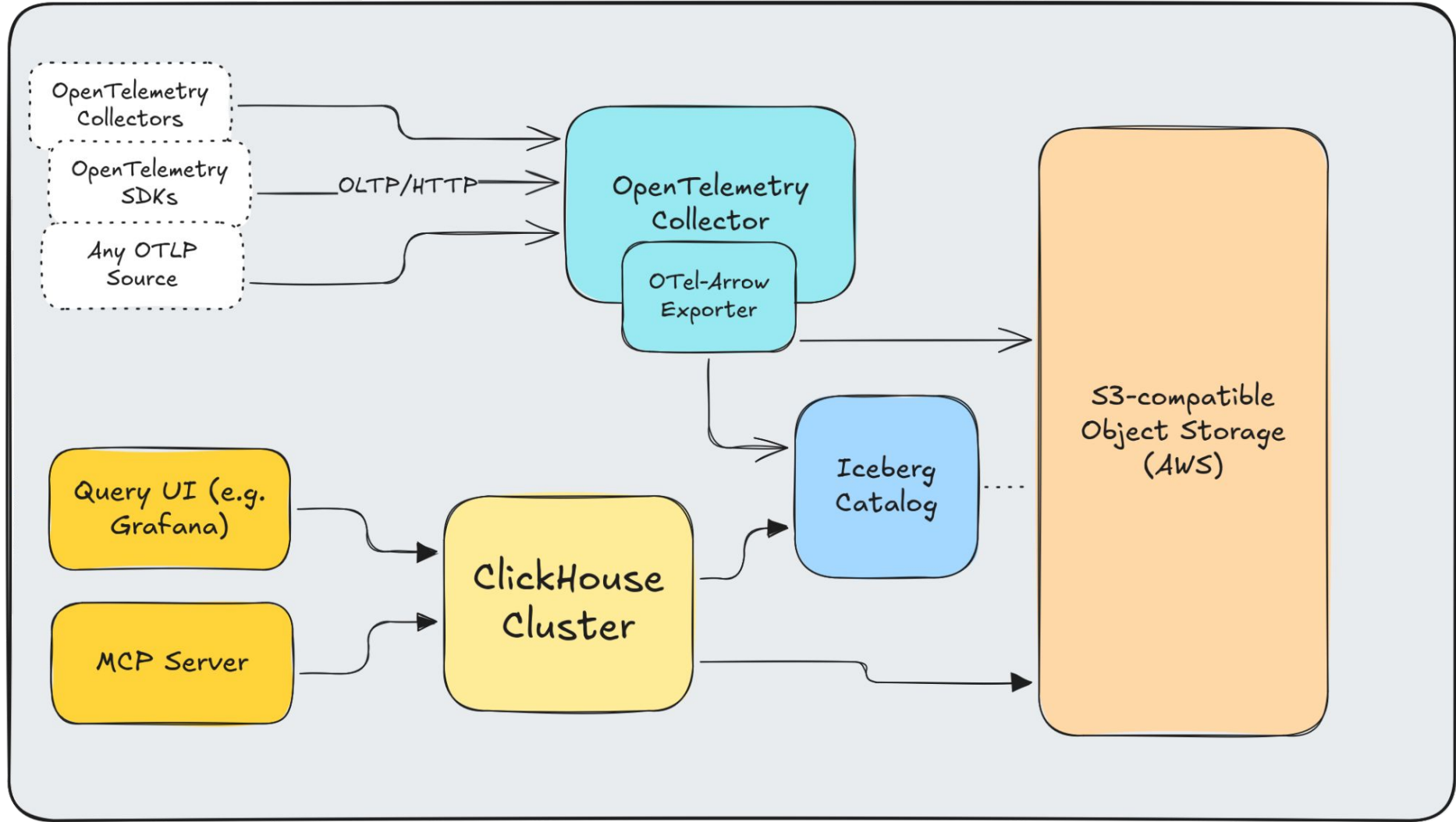
Iceberg Catalogs

- Apache Polaris
- Altinity Ice Rest Catalog
- Lakekeeper
- ... more

"Cool Josh, what about production?"







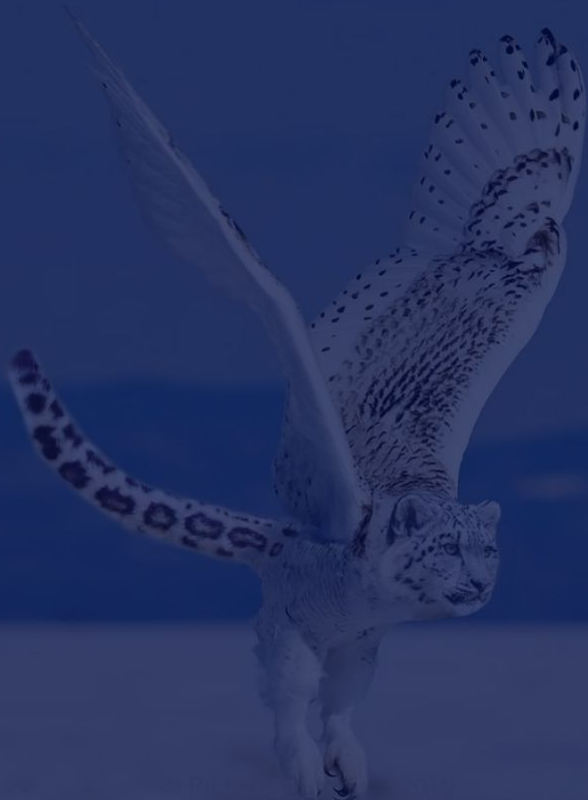
OTLP IN



SQL OUT



"... and real-time?"



Introducing Hybrid Tables: Transparent Query on ClickHouse® MergeTree and Iceberg Data

Project Antalya Roadmap 2026 #1359

New Issue



Open



svb-alt opened on Feb 2 · edited by alex-zaltsev

Edits

Member



Here's the current Project Antalya roadmap for 2026. This year the focus is on direct writes to Iceberg, improved usability of the swarms and Hybrid table engine, and interoperability with regard to cloud providers and catalog types. All features are open source-- there are no hold-backs.

Please suggest additional features and ideas in the comments to this issue. We also welcome contributions.

Make Iceberg a first-class citizen in ClickHouse

- CREATE TABLE for Iceberg/DataLakeCatalog database engine using 'AS <other_table>' syntax. It should respect table structure, partitioning and ordering of MergeTree table if given
- DROP TABLE for Iceberg/DataLakeCatalog database engine
- TRUNCATE TABLE for Iceberg/DataLakeCatalog database engine [#1529](#)
- Map specific catalog namespaces as Iceberg databases [#1337](#)
- ALTER TABLE EXPORT PARTITION ALL to Iceberg/DataLakeCatalog

Swarms:

Assignees

No one assigned

Labels

antalya enhancement

Type

No type

Projects

No projects

Milestone

No milestone

Relationships

None yet

Development

ment mode



<https://github.com/Altinity/ClickHouse/issues/1359>

Benefits

- Practically limitless scale
- Completely open access
- Runs anywhere
- Makes MCP awesome
- SQL-based observability

Limitations

- SQL-based observability*
- Not real-time (yet)*
- Compute overhead in pipeline*
- Many parts to maintain*

You don't have to go alone

You don't have to go alone

Odigos / Coroot

→ eBPF-powered no-code instrumentation

Bindplane

→ Performant & manageable OTel pipelines

O11y Garden

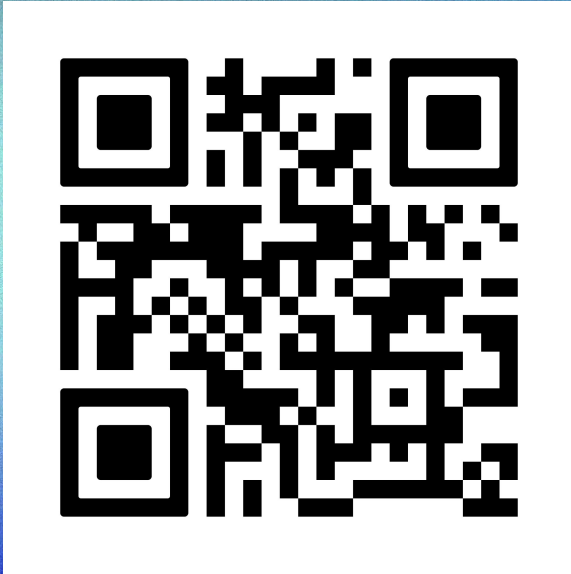
→ Telemetry quality, semantic conventions

Altinity.Cloud

→ Managed service for ClickHouse[®] (anywhere)

It only gets better from here...

Demo Repo



Thank you! Questions?

Continue the conversation:

<https://altinity.com/slack>

We're hiring!

Resources

- OTel / Parquet / Iceberg POC Demo:
<https://github.com/Altinity/demo-otel-parquet-antalya>
- O11y in One talk:
https://www.youtube.com/watch?v=uDY_EsE47sA
- OTel Vendor-Neutrality talk:
<https://www.youtube.com/watch?v=A5L6F8wcVnI>
- Project Antalya Roadmap:
<https://github.com/Altinity/ClickHouse/issues/1359>
- All Altinity Demos:
<https://altinity.com/demos/>