

Self-serve Reporting with Apache Superset

STM Digital Publishing Seminar

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Hindawi publishes 232 open access journals.

We also provide platform technology services to societies and publishers.

Phenom, our new end-to-end publishing platform, supports flexible workflows through open source components.



Manuscript Flow



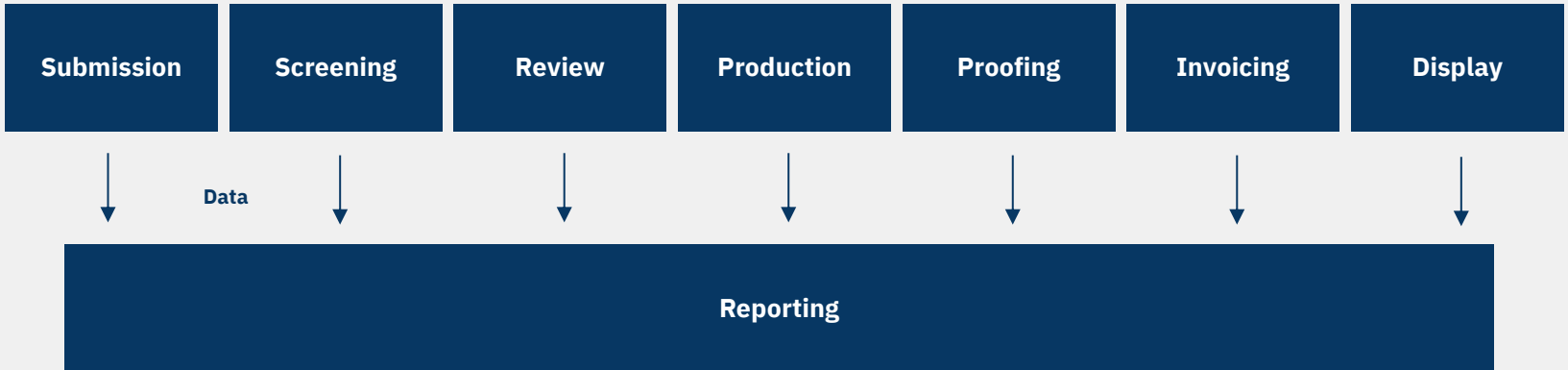
The Goal:

- Implement a reporting component.

The Constraints:

- Allow reporting across components.
- Preserve a decoupled, microservices architecture.
- Allow users to create “self-serve” reports.
- Use free and open source solutions.

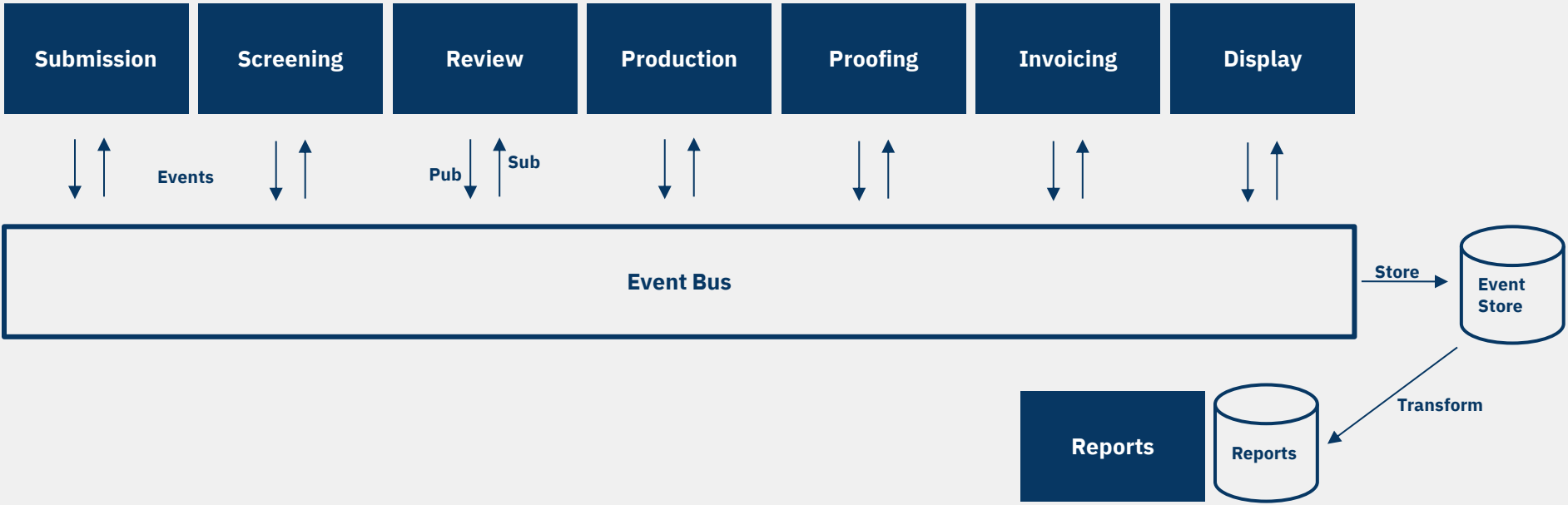
Option 1: Connect to all components 😞



Option 2: Reporting everywhere 😞



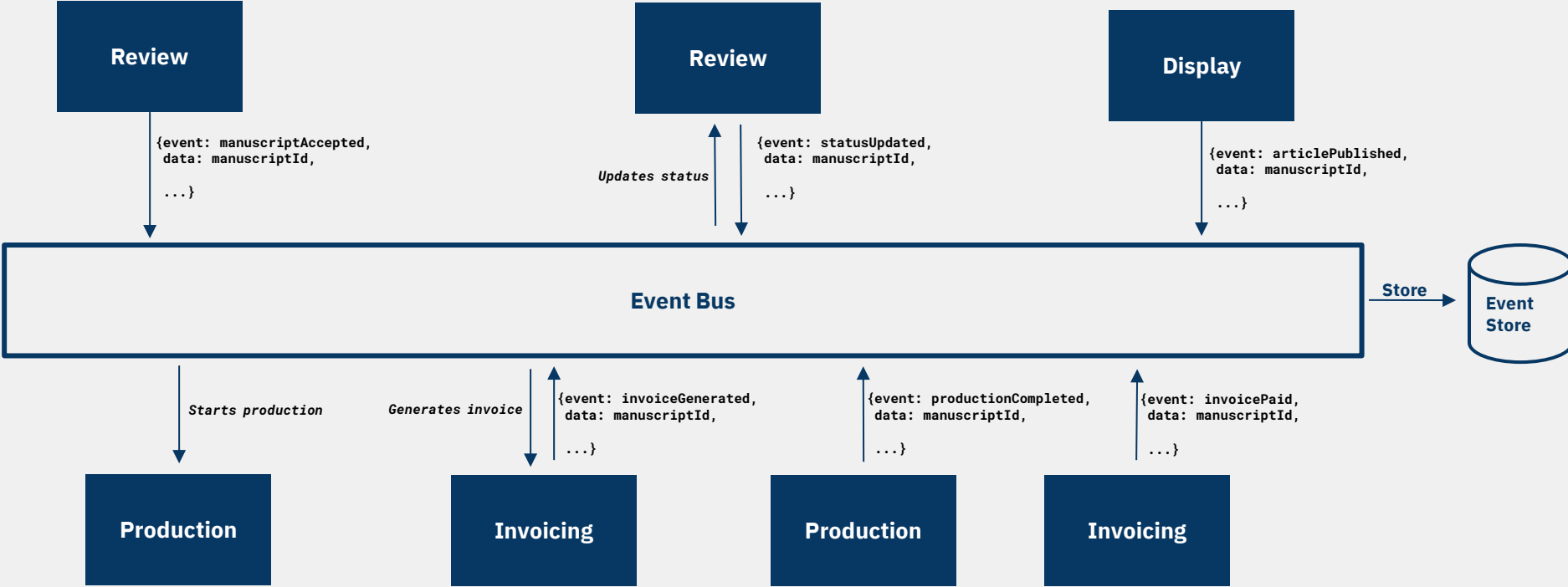
Option 3: Build reports from system “events” 😊



What are these “events”?

- **Events are a way of creating data consistency across independent services, without tight coupling**
- **Components fire events for actions significant to the business**
- **Components subscribe to events they care about**
- **Events contain the JSON payload other services need to act on those events**
- **Event store preserves the state of the system**

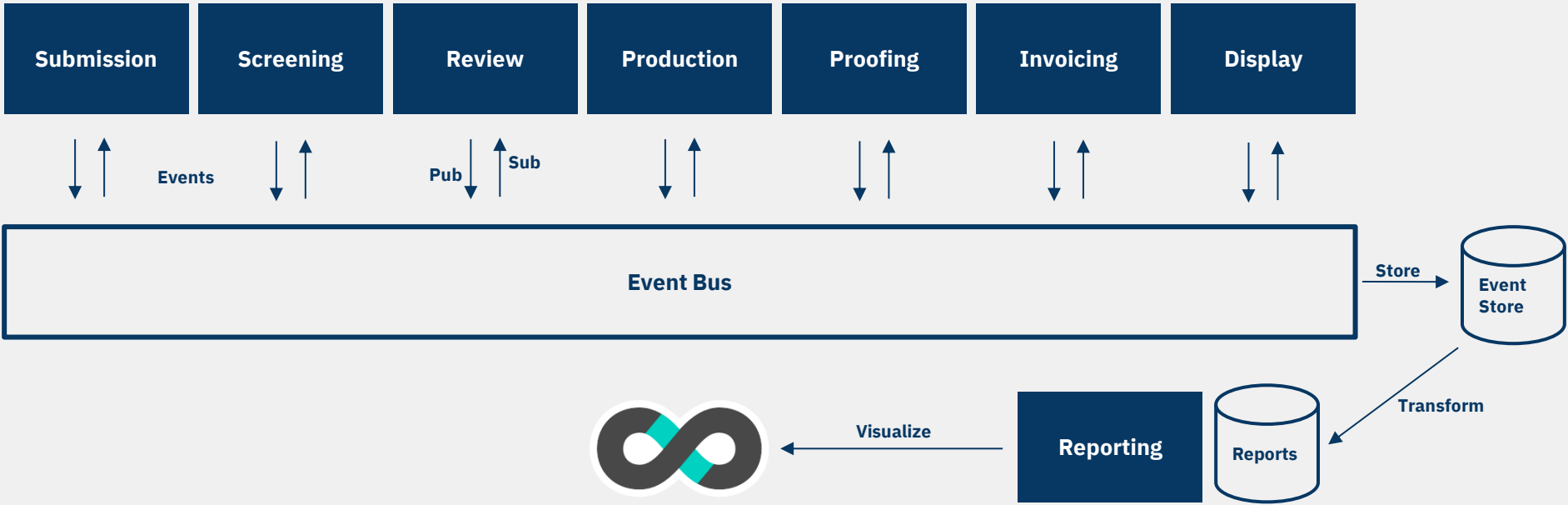
Example: Choreography-based event “sagas”

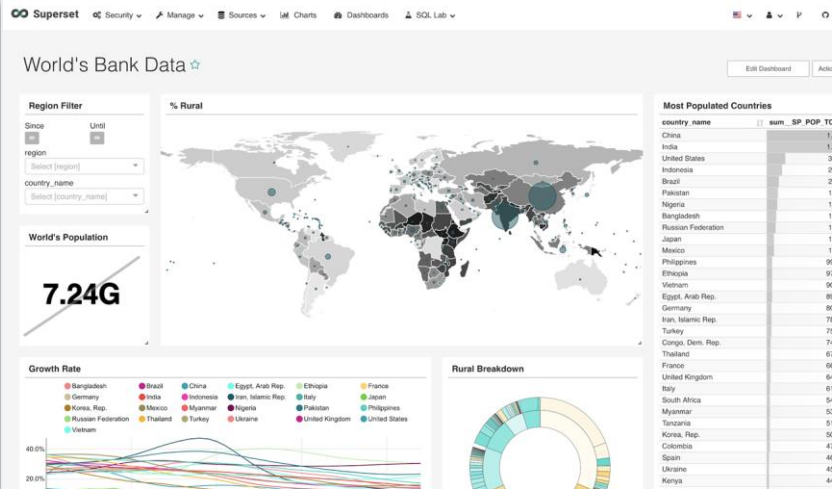


Manuscript Flow



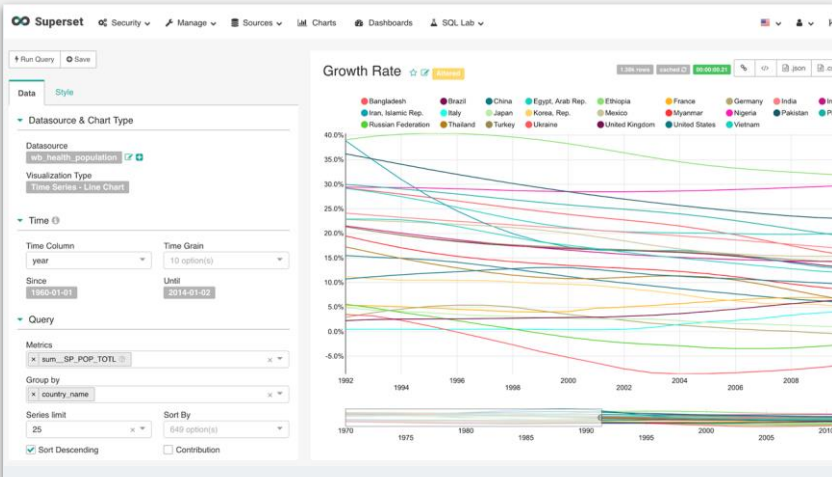
Two constraints down, two to go.





Apache Superset

- Developed at AirBnB
- Fully open source, incubated by Apache
- Interactive visualizations on arbitrarily large datasets
- Simple enough for non-technical users
- Real-time dashboards can be shared across the business
- Connects to most SQL databases
- Supports enterprise-level authentication and security



Why open source?

- **Reduce costs, variation, and complexity**
- **Encourage interoperability and reduce lock-in**
- **Attract talented developers**
- **Fulfill open science goals**

Open source repositories

<https://gitlab.com/hindawi>

<https://github.com/apache/incubator-superset>

Get in touch!

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