

# Interoperability on an Enterprise Level

Taking Control Over Observability Data with Observability Pipelines

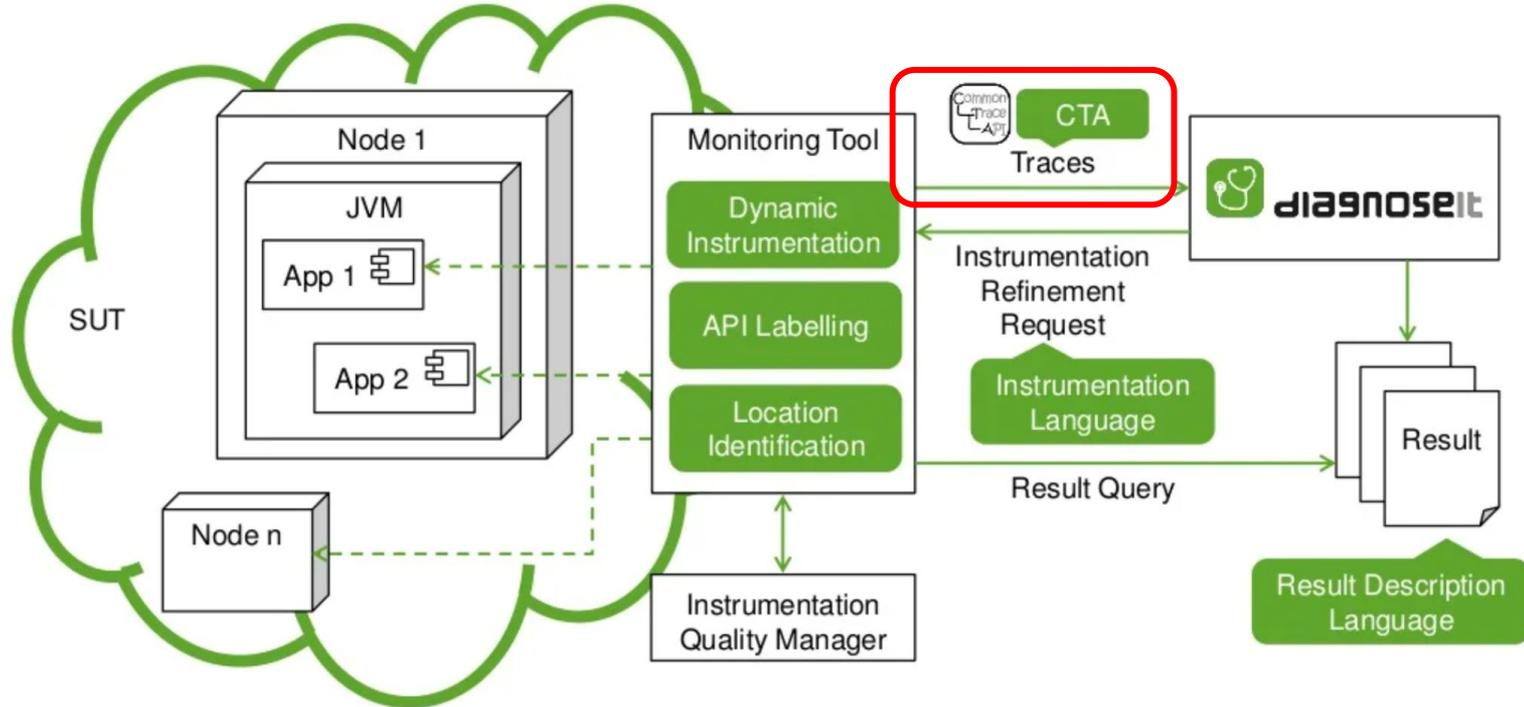
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*Enterprise Sales Engineer @ Datadog*

Symposium on Software Performance  
Stuttgart, November 8th 2022



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# Overview



# Common Trace API



## Motivation

Monitoring data format is tool-specific

## Drawback

APM vendor lock-in limits interoperability and data exchange

## Goal

APM vendor independent data access

## Join us

<https://goo.gl/UuoZkN>



University of Stuttgart  
Germany

(<http://goo.gl/5S337v>)



Karlsruhe Institute of Technology

(<http://goo.gl/AAwdge>)



(<https://goo.gl/eDuA9R>)

## Importers



(<http://goo.gl/3xM2ur>)



(<http://goo.gl/KCWimU>)

## Planned

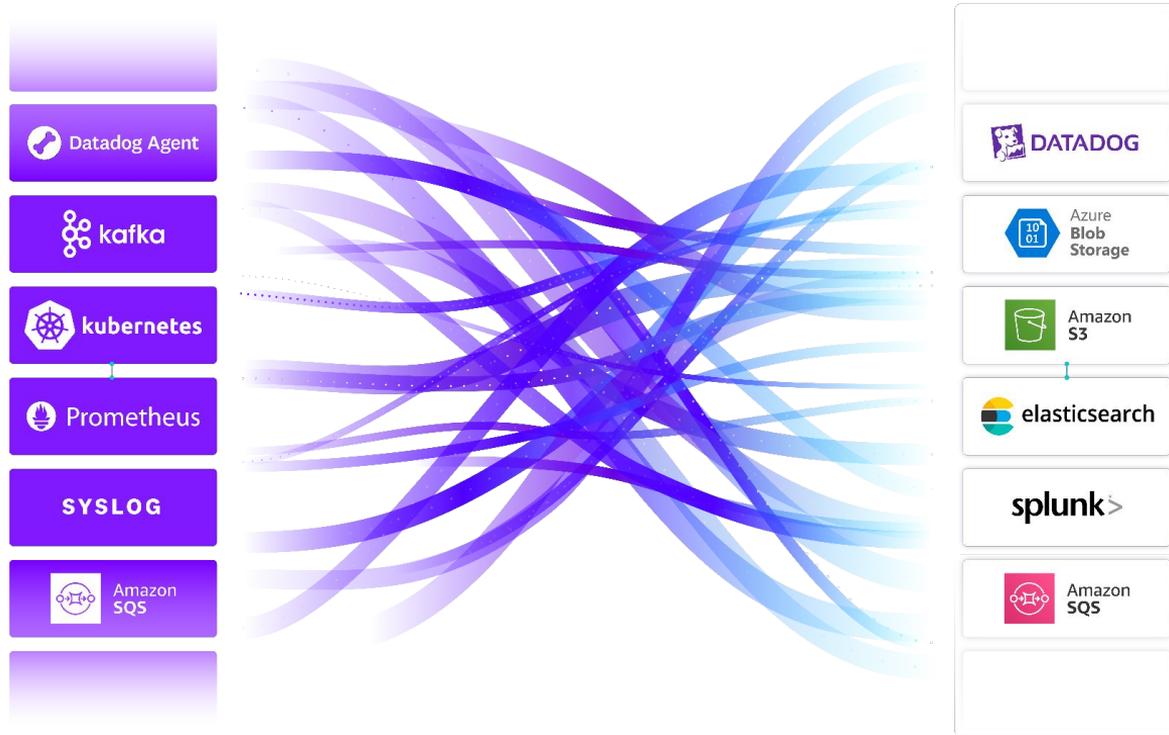


(<http://goo.gl/z18Tuj>)

APPDYNAMICS

(<http://goo.gl/B3rJt4>)

# Explosion of data complexity



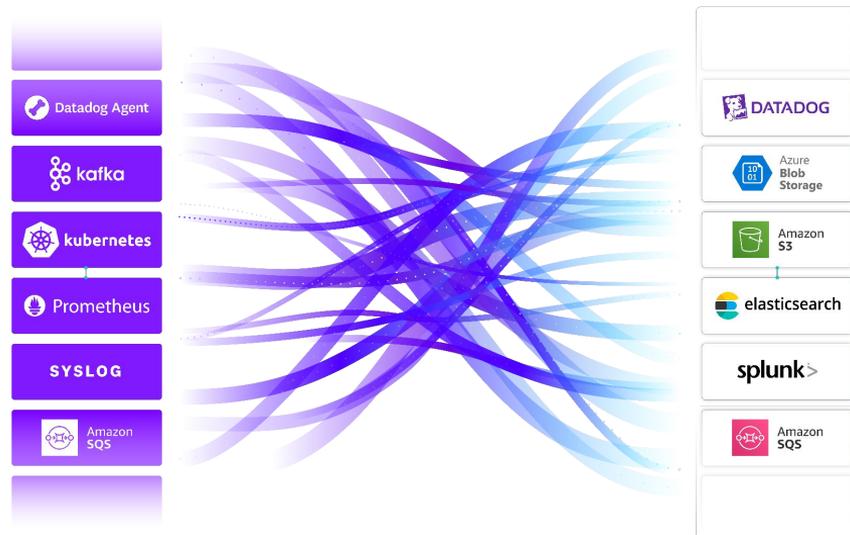
# No flexible or centralized control of data...

01 Runaway Costs

02 Vendor Lock-In

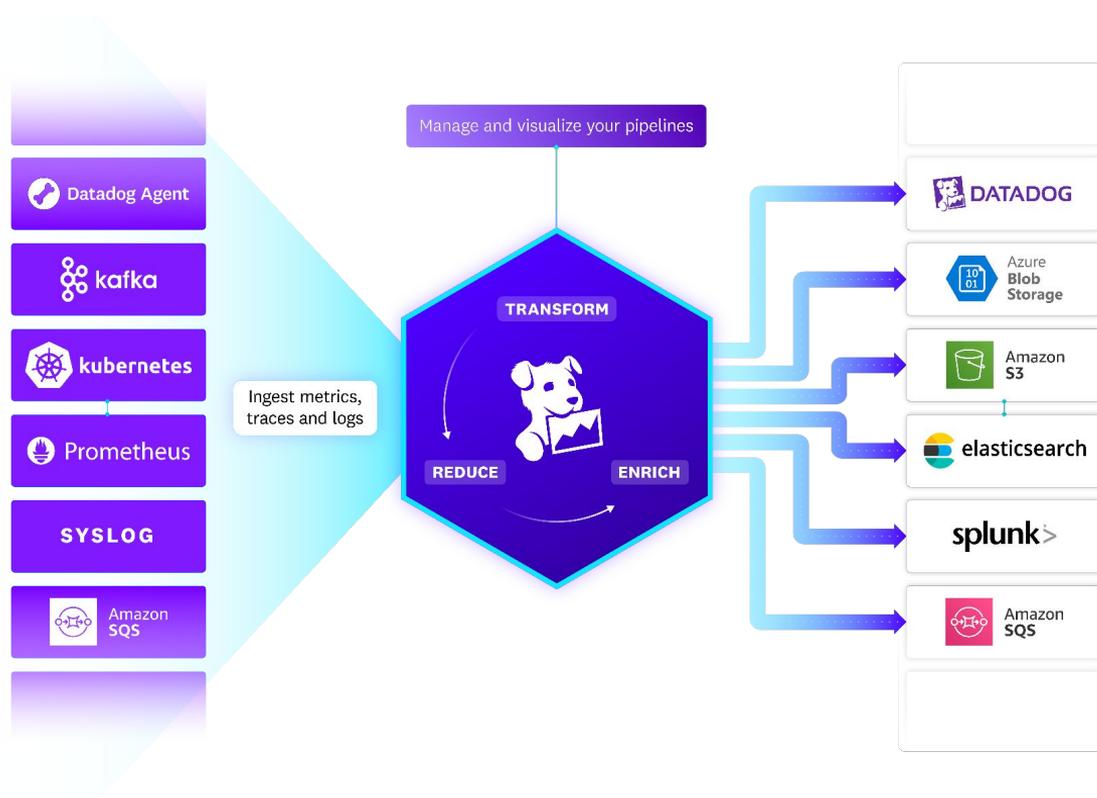
03 Sensitive Data Risk

04 Inconsistent Data Quality



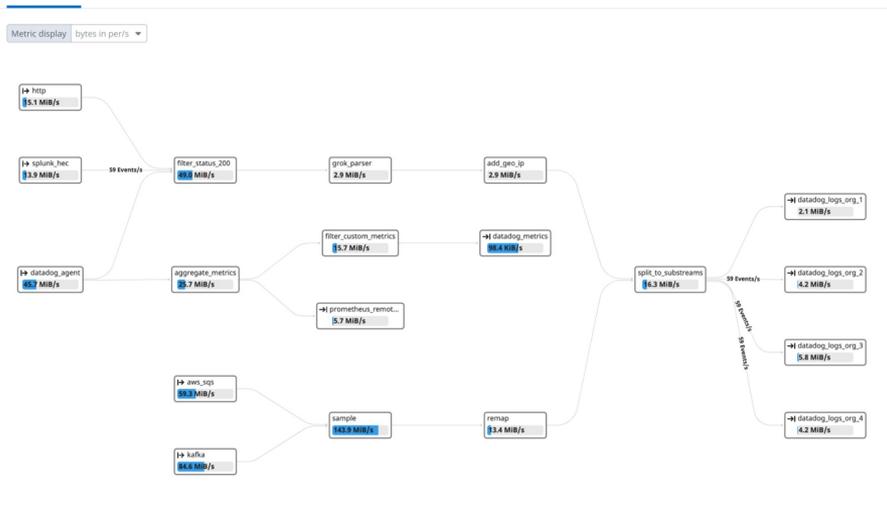
# Cost-Effectively Manage and Scale Observability

with complete flexibility and control of your data



# Introducing: Observability Pipelines

Take control of your observability data



## Control Costs, Improve Visibility

Power to aggregate, filter and route all your observability data based on use case

## Simplify Migrations

Orchestrate and monitor data processing from any source to any destination in one central view

## Protect Sensitive Data

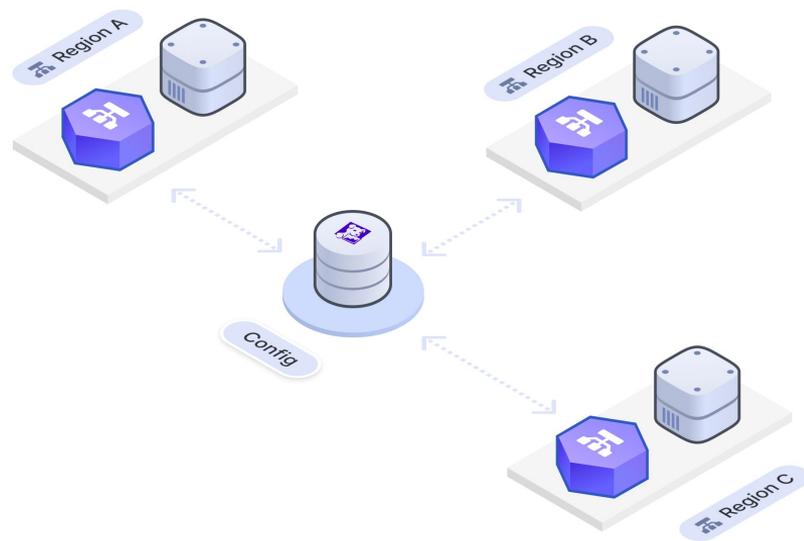
Filter, redact and monitor sensitive data in order to meet compliance requirements

## Enforce Data Quality

Enforce standards across logs, metrics and traces to improve observability across your teams

# Scale with confidence

- **Superior performance, Petabyte scale**  
Able to process petabytes of data with open source pipelines, battle tested by thousands of developers and enterprises alike
- **Highly reliable and memory safe**  
Built from the ground up with Rust, Observability Pipelines is designed for scale, safety and cost effectiveness
- **Designed to prevent data loss**  
Prevent data loss with OOTB features like disk buffers and adaptive request concurrency to create pipelines designed for reliability and latency



# Control Costs, Improve Visibility



## Reduce total volume

Filter, sample and aggregate logs; eliminate duplicate fields; convert logs to metrics



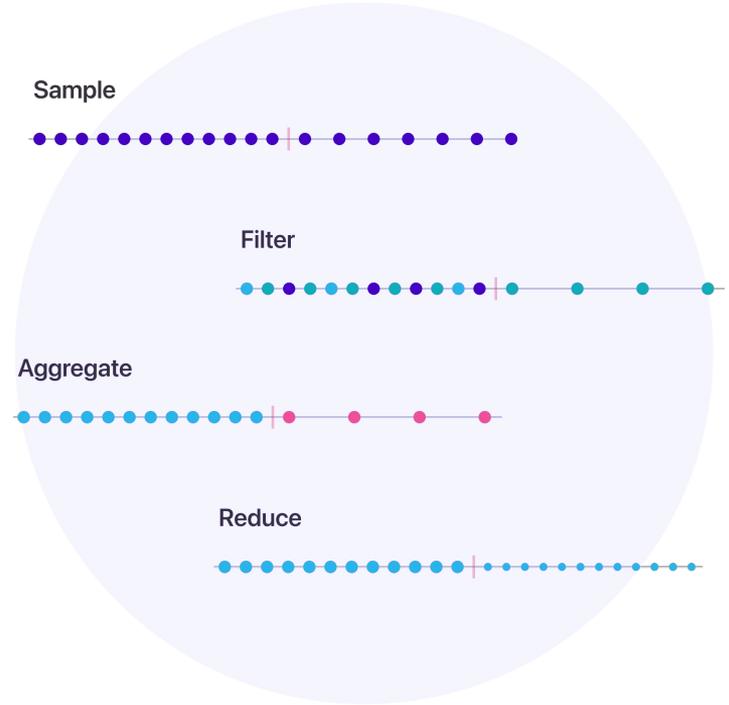
## Re-route noisy data

Route unnecessary data to low cost storage before incurring expensive fees, with the option to rehydrate data as needed for future investigations, or drop altogether to save on egress fees



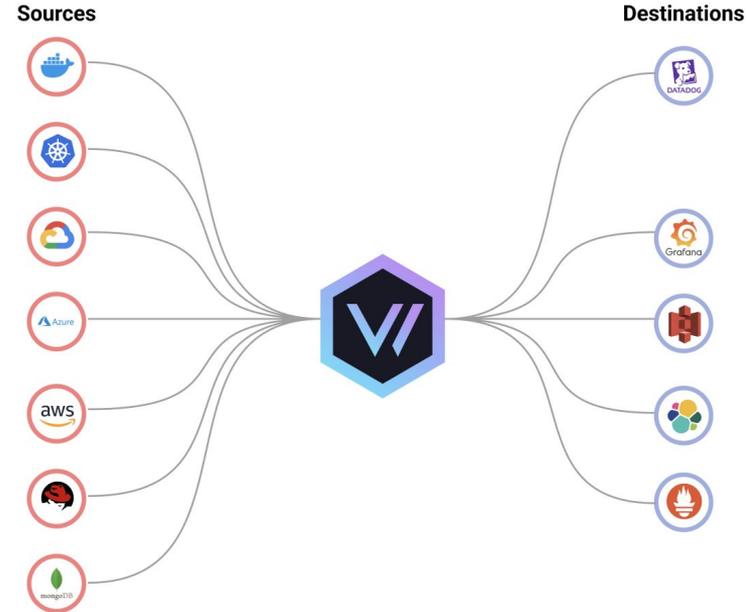
## Data spike protection

Impose rule-based throttles and reactive routing strategies for unexpected spikes



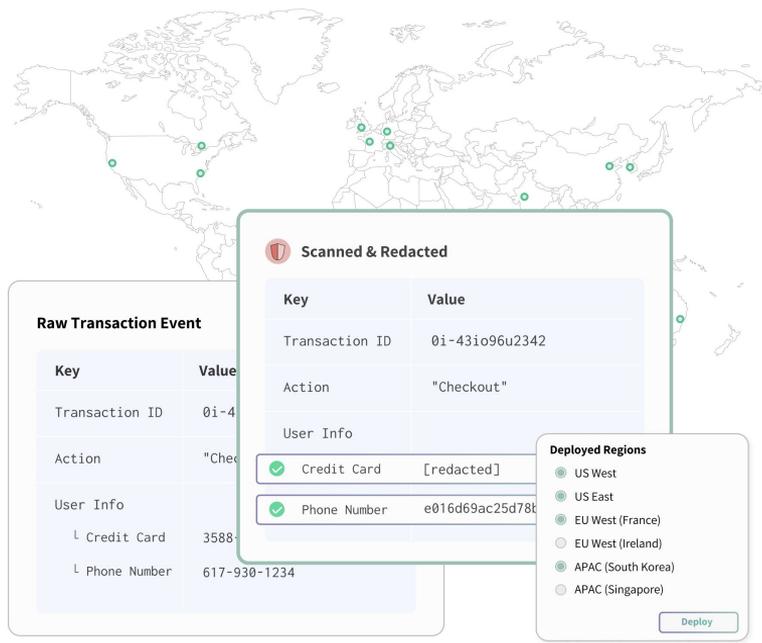
# Simplify Migrations

- Route data to any destination**  
Move data from any source to any destination without disrupting existing workflows
- Adopt new vendors at your own pace**  
Translate incoming data to any schema to make sure it can be sent to any vendor without issue
- Replay data to any destination**  
(Coming soon) Store data in low cost storage and replay to any destination for large migrations, audits or historical analysis



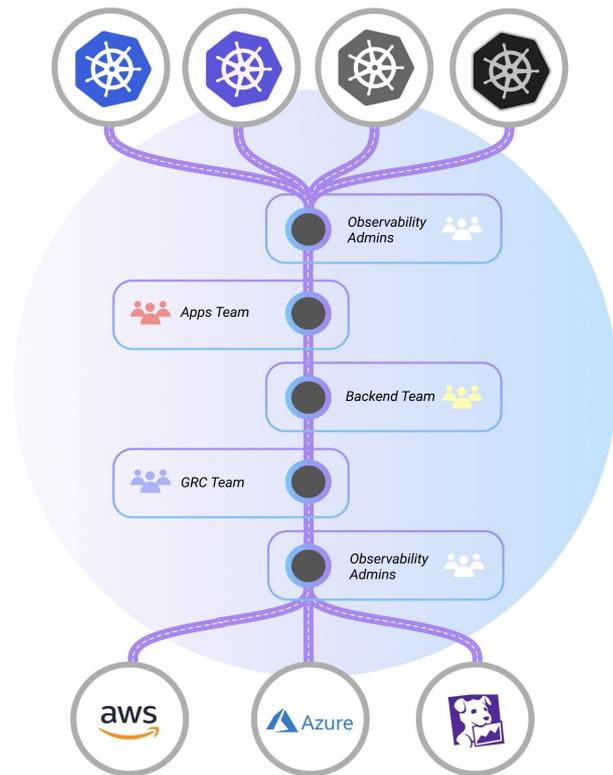
# Protect Sensitive Data

- Meet data residency requirements**  
Stay compliant with local laws or region-specific constraints with distributed deployments
- Automatic redaction of sensitive data**  
Redact/hash PII before they leave your infrastructure.  
*(Coming soon) Scanning & scrubbing sensitive data*
- Prevent data loss with reliable pipelines**  
Pipelines designed for high availability, and low latency. OOTB features (disaster recovery, throttling etc) to prevent data-loss



# Enforce Data Quality

- **Get more out of your investments**  
Format, transform and enrich all observability data using OOTB processors to get more insights out of your existing systems
- **Improve quality with centralized control**  
Adopt comprehensive standardization frameworks to ensure high-quality data across your organization
- **Empower teams to own their data**  
*(Coming soon) End-to-end data management, GitOps workflow, remote configuration and Enterprise-grade access control to give teams ownership of specific components of the pipeline*





## How Klarna scaled observability with complete control of their data

### About:

- Buy-now, pay later market leader
- More than 250 teams and 1000s of engineers

### Challenge:

Significant trouble scaling their observability architecture with no central control over their data creating

- Organizational silos,
- Data locked in to high cost vendors,
- Issues meeting data residency requirements

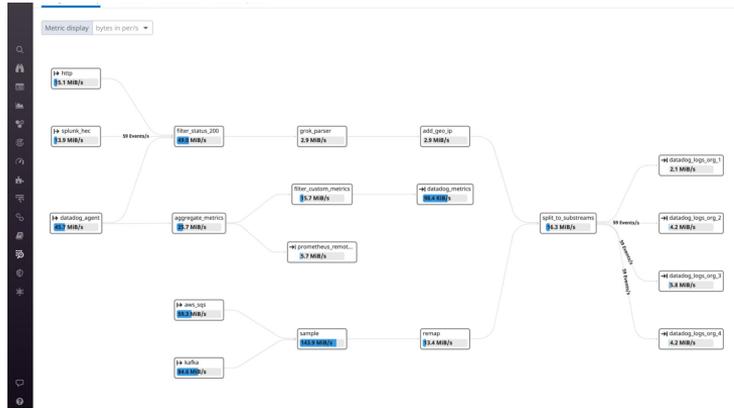
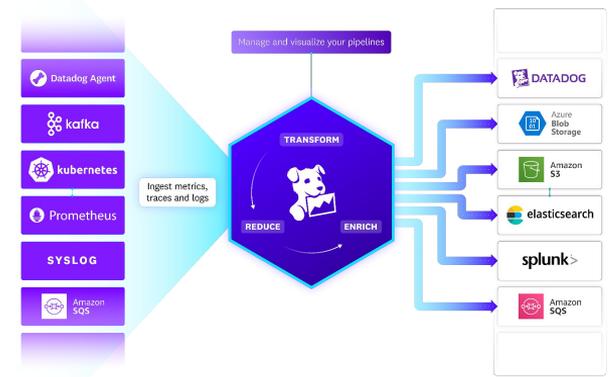
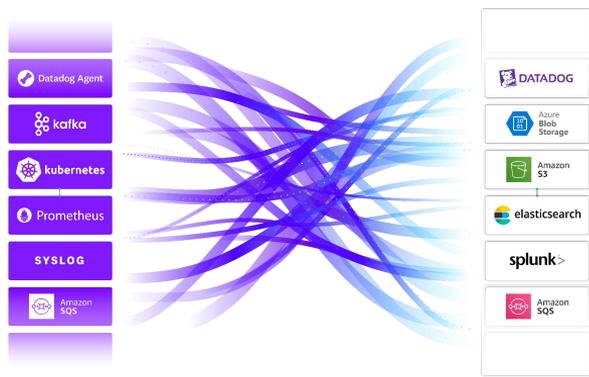
### Datadog Impact:

Klarna used Datadog Observability Pipelines to launch and manage their observability strategy

- **Migrate logs off of expensive tooling**
- **Centralized data governance and control**
- **Confidence in their data residence requirements**

### Result:

Datadog Observability Pipelines helped Klarna meet the demands of the busy holiday seasons, they were able to easily handle surge in data without having to worry about the pipeline breaking, regulatory requirements or losing data



Useful links:

[Datadog](#)

[Blog on O11y Pipelines](#)

[Vector](#)



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# Questions?