

Mercedes-Benz R&D – ‘Best or Nothing’ Data Platform

Engineering and Automation for Data Insights at Autobahn speeds

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Intros



Rodrigo V. Nunes

Principal Engineer,
Cloud and Connectivity



Tyler Axdorff

Staff Infra Engineer,
Cloud and Connectivity

*At MBRDNA we're working with our worldwide colleagues to introduce our own data-driven and flexibly updatable operating system, starting 2024: MB.OS - the Mercedes-Benz Operating System. In this way, we want to **intelligently connect the vehicle with the cloud and the Internet of Things (IoT) world.***

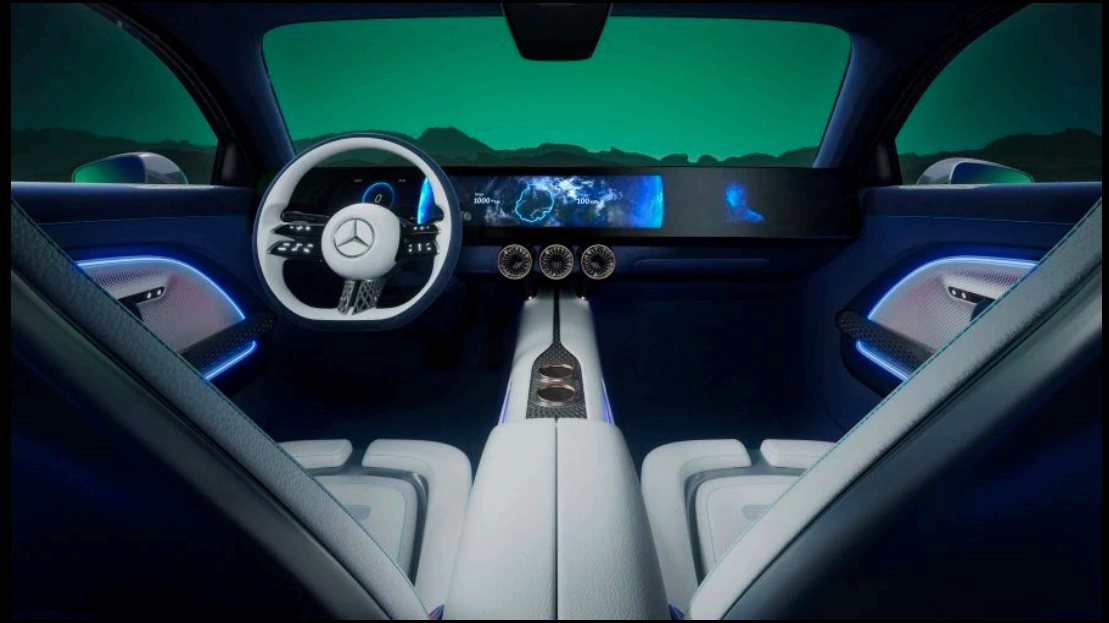
<https://jobs.lever.co/MBRDNA>

Automotive Data Challenges

- Highest standards for protecting our customers' privacy
- Most complex IOT devices in the world
- Not every team can hire infra/ops/opsec engineers



Mercedes-Benz EQXX



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Our Approach



Best practices built-in

- Key rotation
- Audit trail
- Cost management



Automate

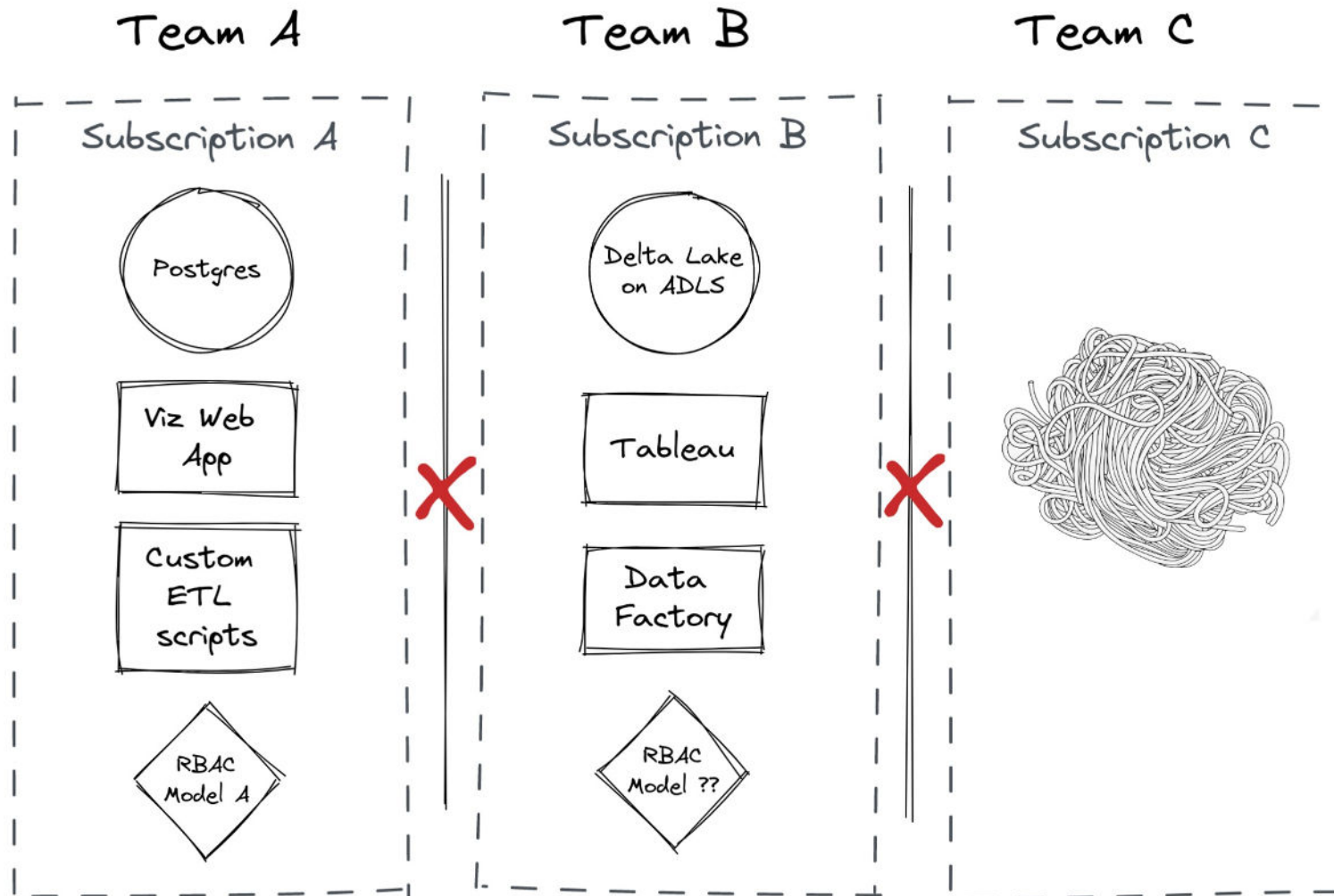
- Data infra blueprint
- Analytics & visualization
- Catalog integration



Breaking Silos

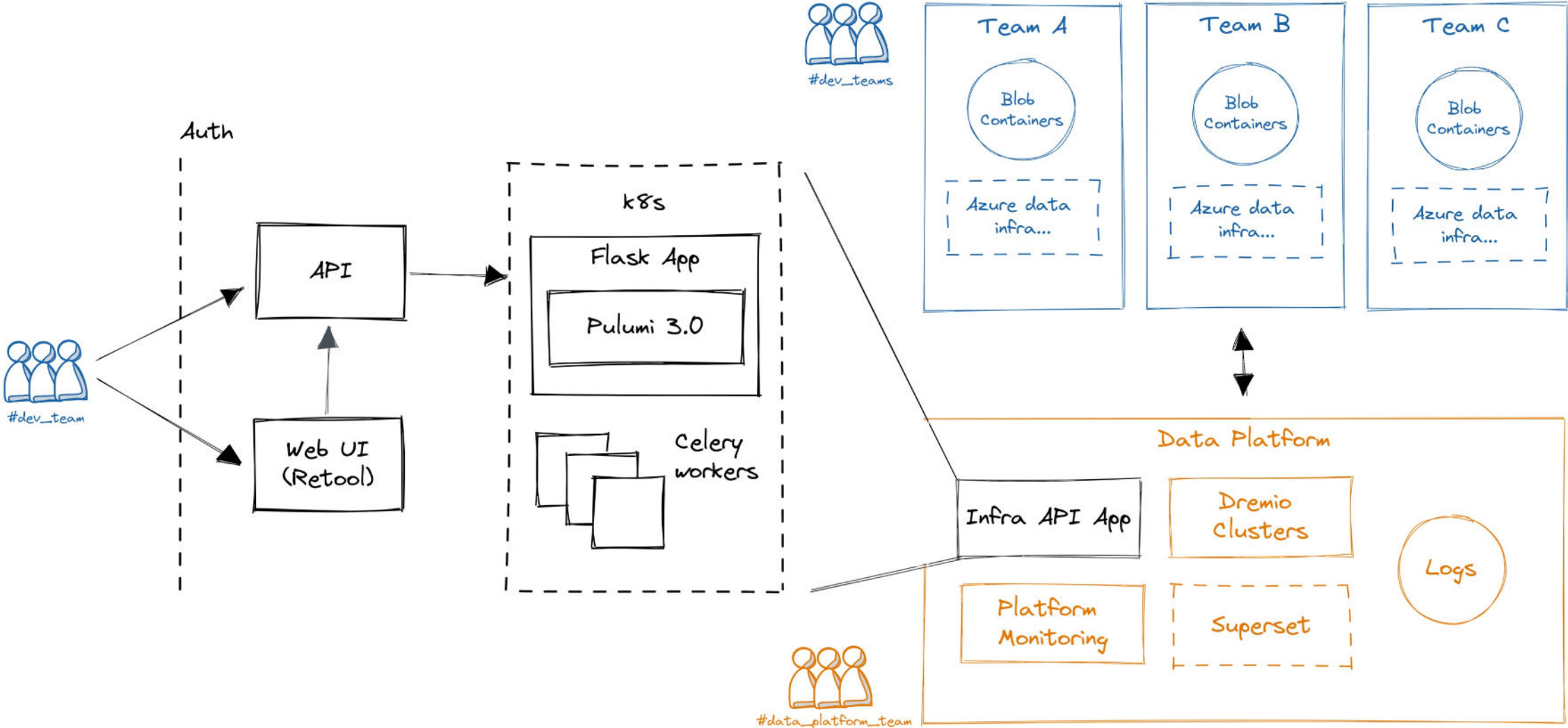
- Bring AWS & Azure together
- Automatic onboarding
- Foster data sharing and discovery

Current "Shared" Landscape

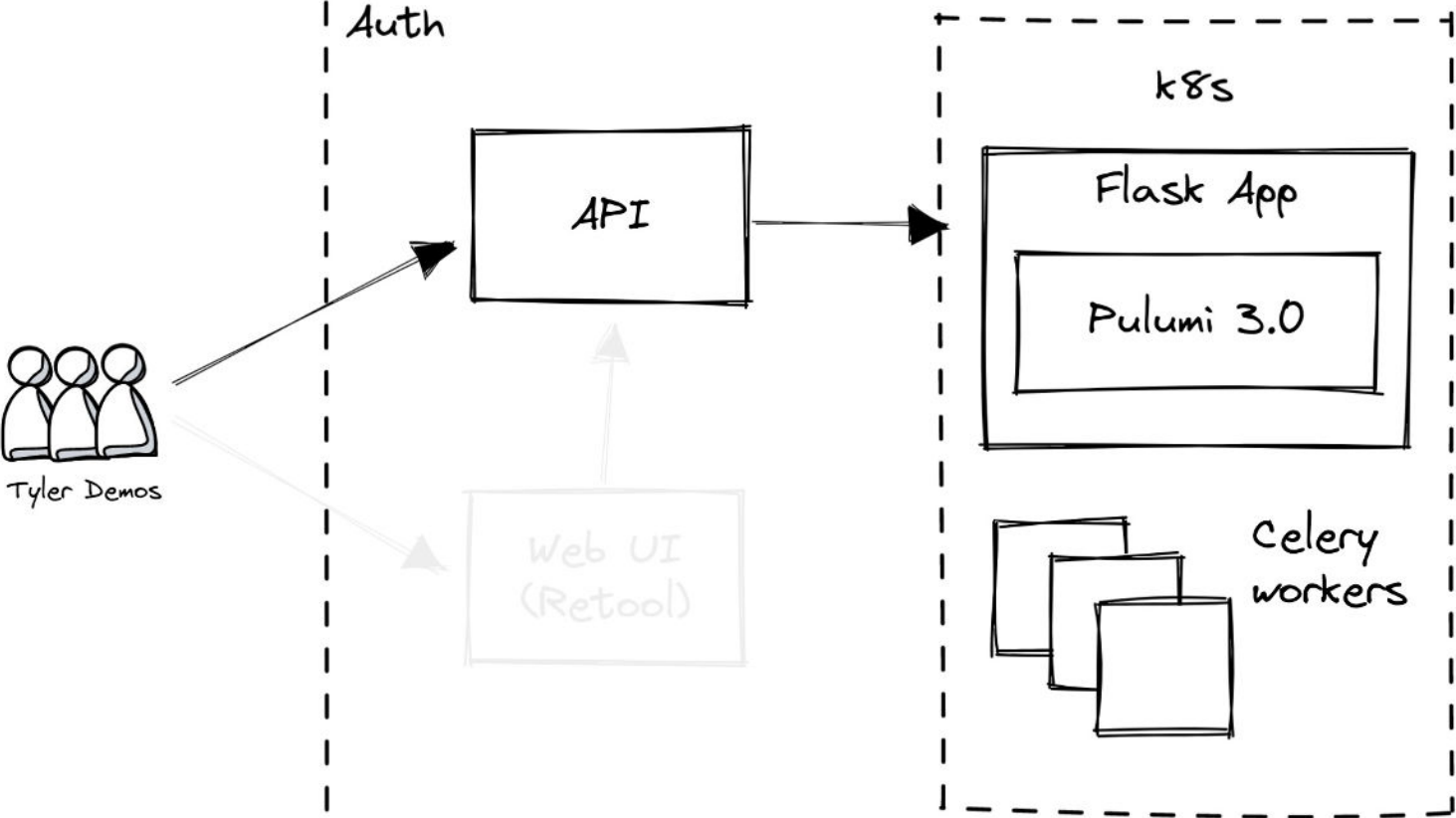


- No discovery
- Copies of data everywhere
- Varying data formats

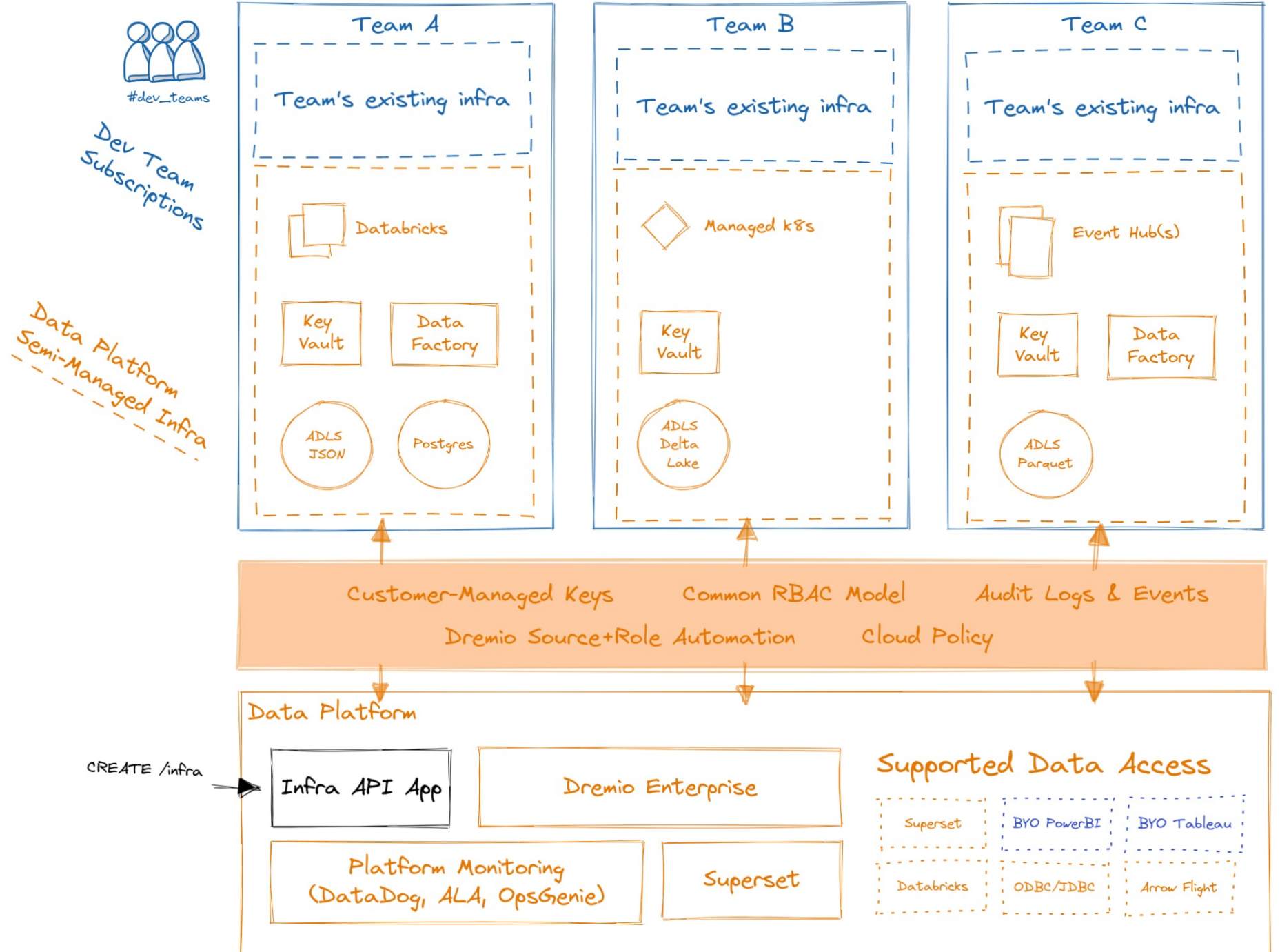
Building a new data landscape



DEMO - API



A Shared Data Platform

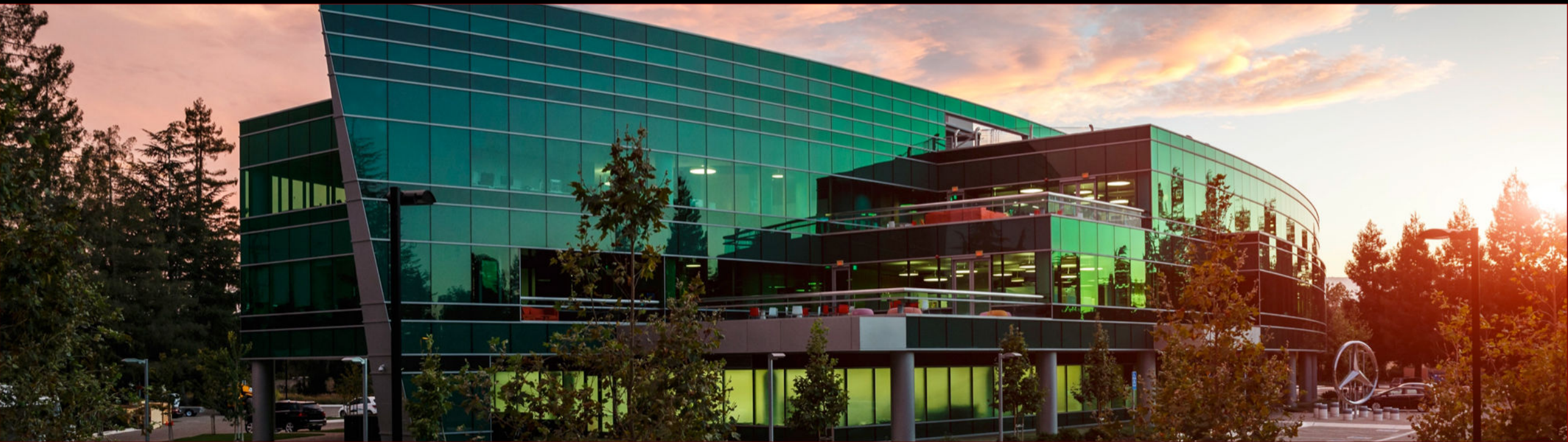


DEMO – Visualizing Trip Data With Dremio & Superset

- Note: we can't show you our real test data, so we'll use AWS vehicle simulator
 - Generates vehicle sensor data + trip info
- Perform a join query and create a VDS linking weather data (public source) from S3
- Create dashboard for VSD in Superset

Next Steps

- Exploring Retool for self-service "data supermarket" frontend
- Enable Superset automation for teams, Airflow connection to Dremio sources
- We'd love to talk to you if you're exploring similar concepts



Thank you!

Questions?

Contact Us (on conference slack or via email):

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