

# Data Ingestion With Event Hub

Data Science Dojo

# Typical Event Processing



Applications



Cloud Gateways  
(WebAPIs)



Scalable  
Event Broker



External  
Data Sources



Web/Thick  
Client Dashboards



Devices



Field Gateways



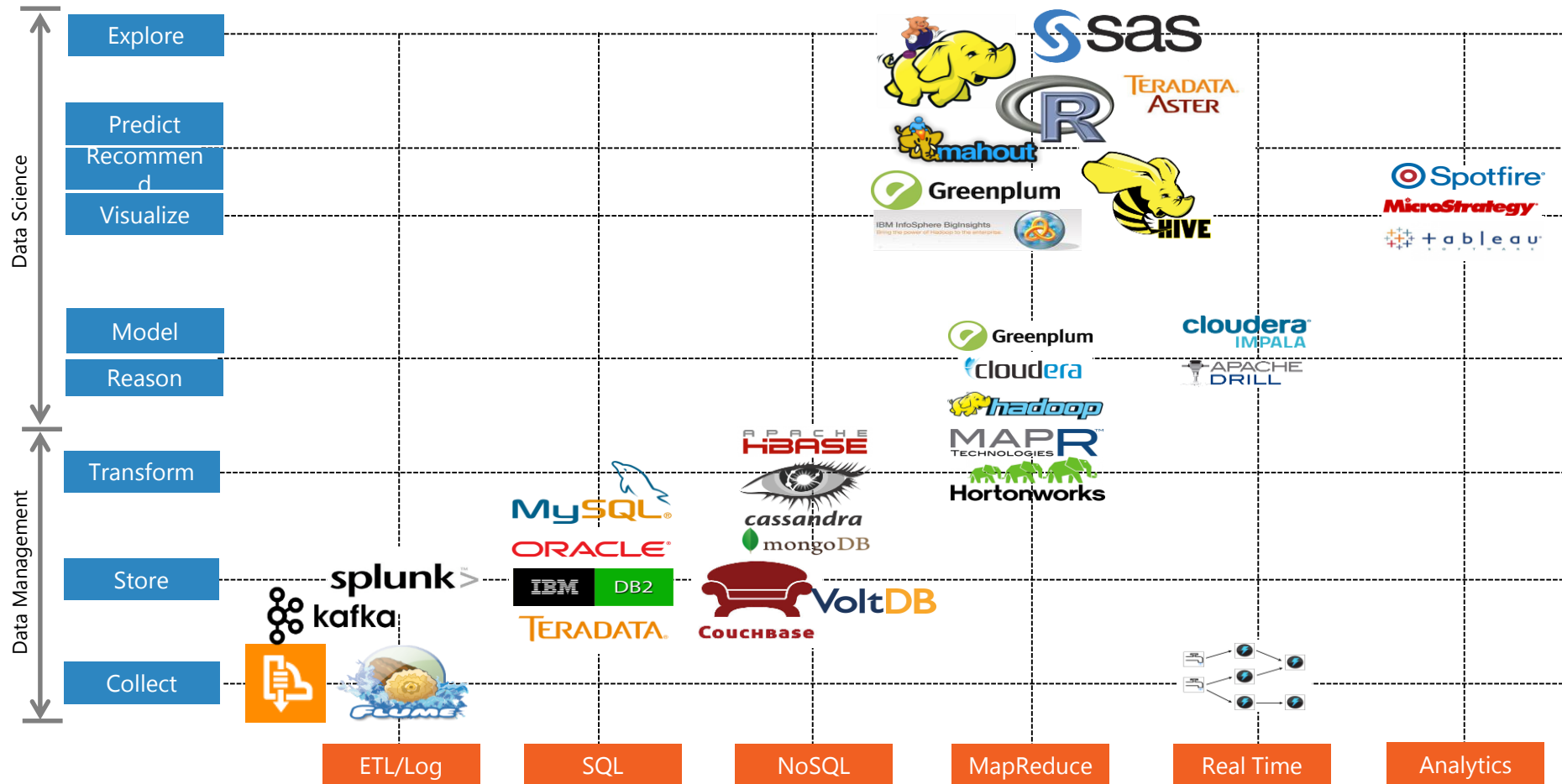
Search and Query



Data Analytics

**data science dojo**

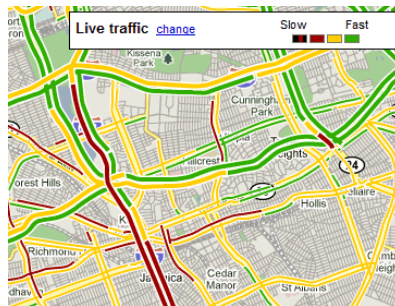
unleash the data scientist in you



# Hypothetical Scenario



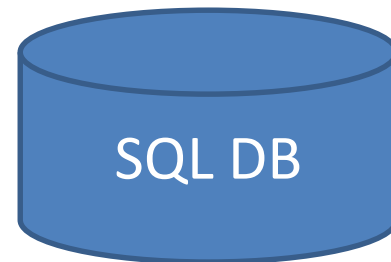
Bureau of  
Transportation  
Statistics



Sends Traffic Data



Server: ABC, Port 123

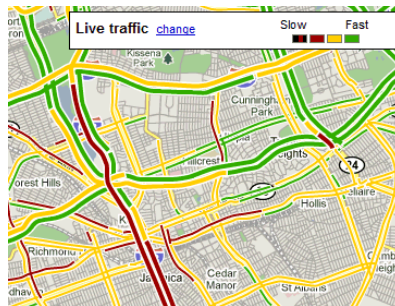


Your Company

# Things Change



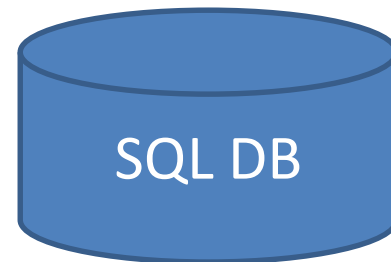
Bureau of  
Transportation  
Statistics



Sends Traffic Data



**WAS** Server: ABC, Port 123  
**Now** Server: DEF, Port 456

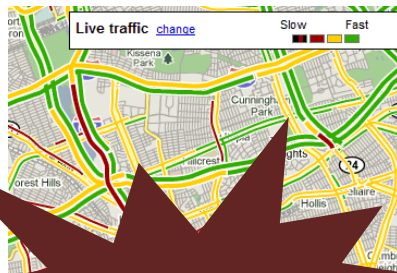


Your Company

# Interruption Occurs



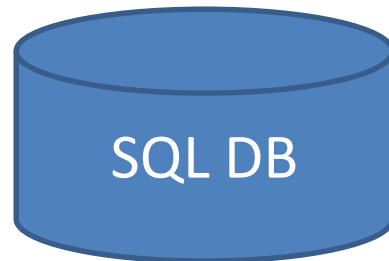
Bureau of  
Transportation  
Statistics



Data Feed  
Interruption

**WAS** Server: ABC, Port 123

**Now** Server: DEF, Port 456



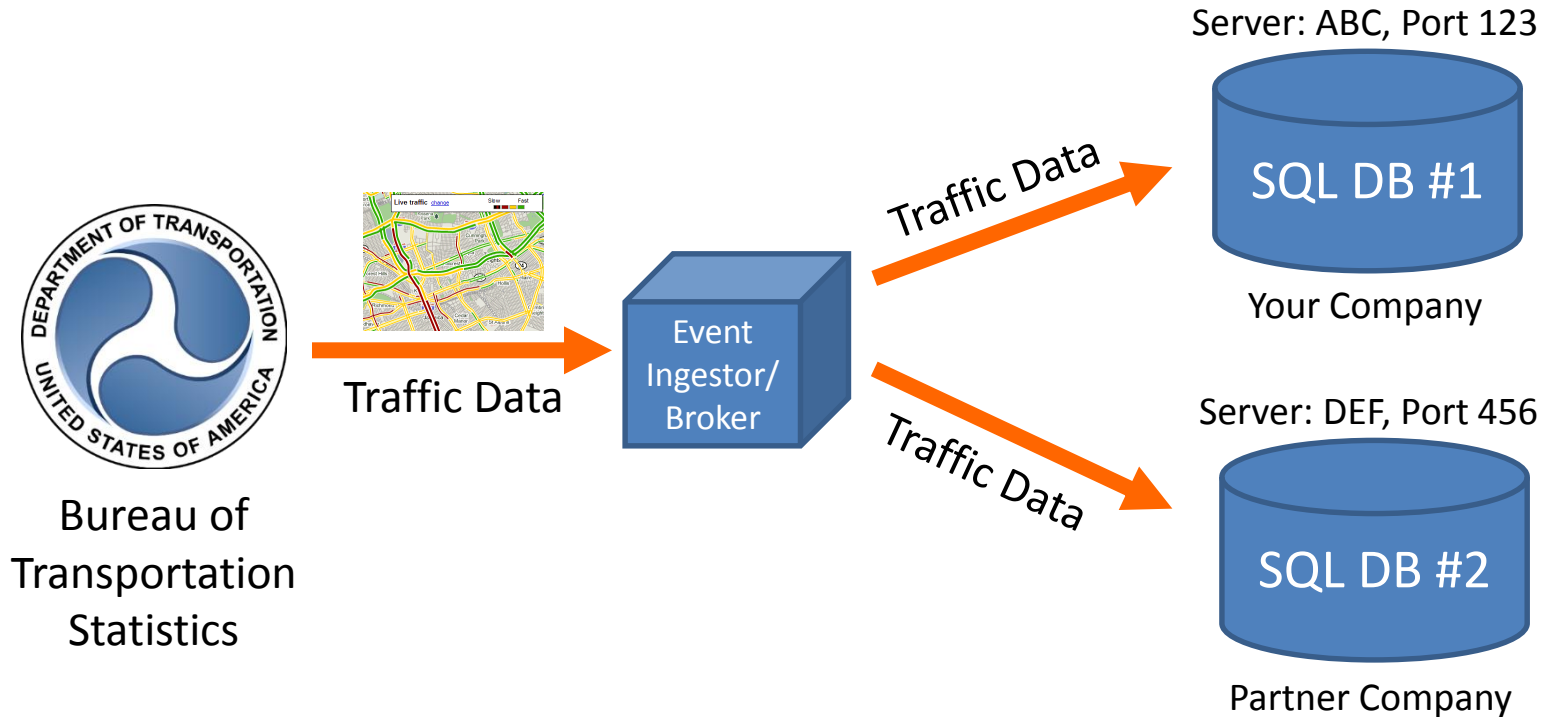
Your Company

# Reactive Remedy

- Call Bureau of Transportation Statistics to change their outbound data to funnel into server DEF and port 456
- Bureau makes support ticket
  - Your request enters their task queue
- 4 days later... ports are changed

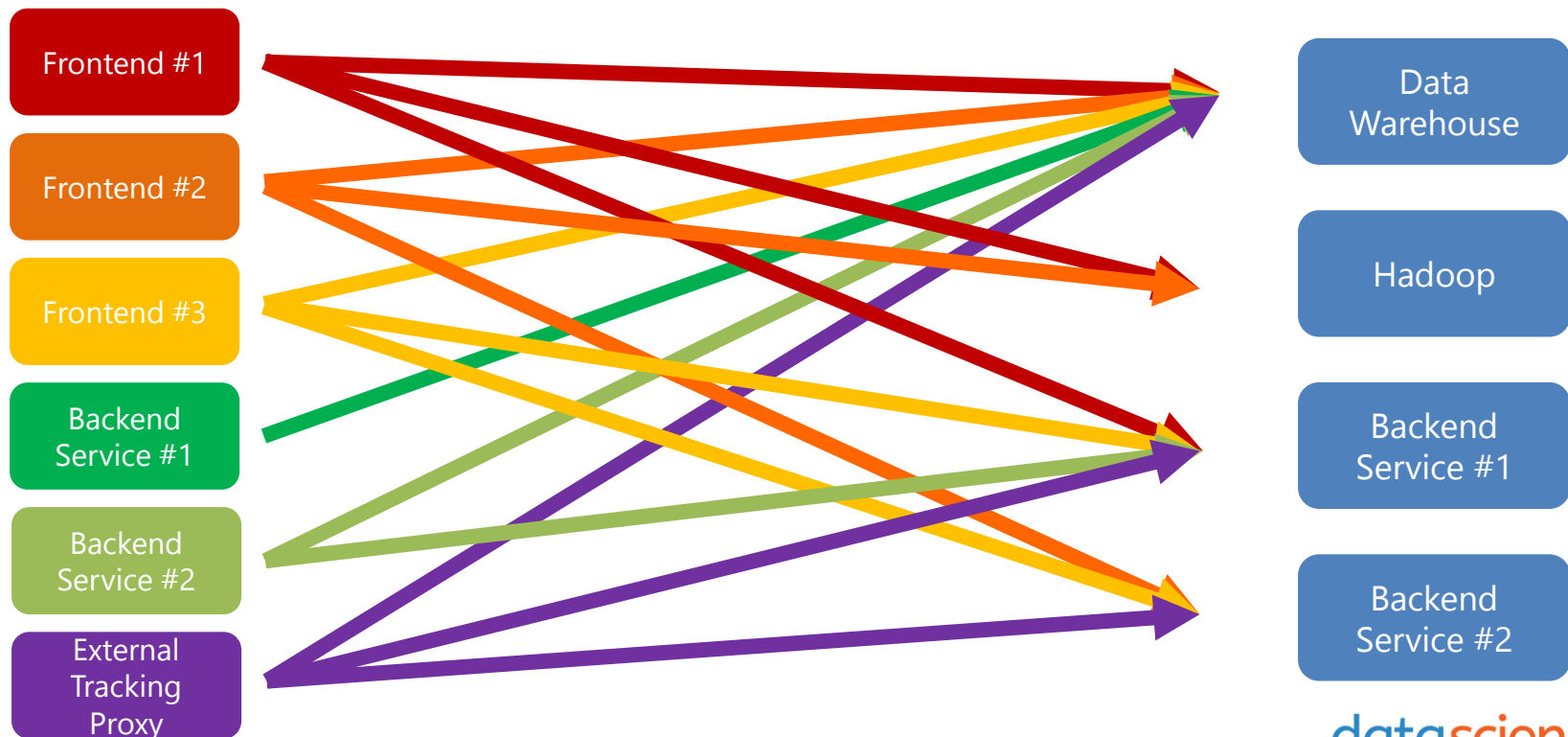


# Preventative Solution: Middleware

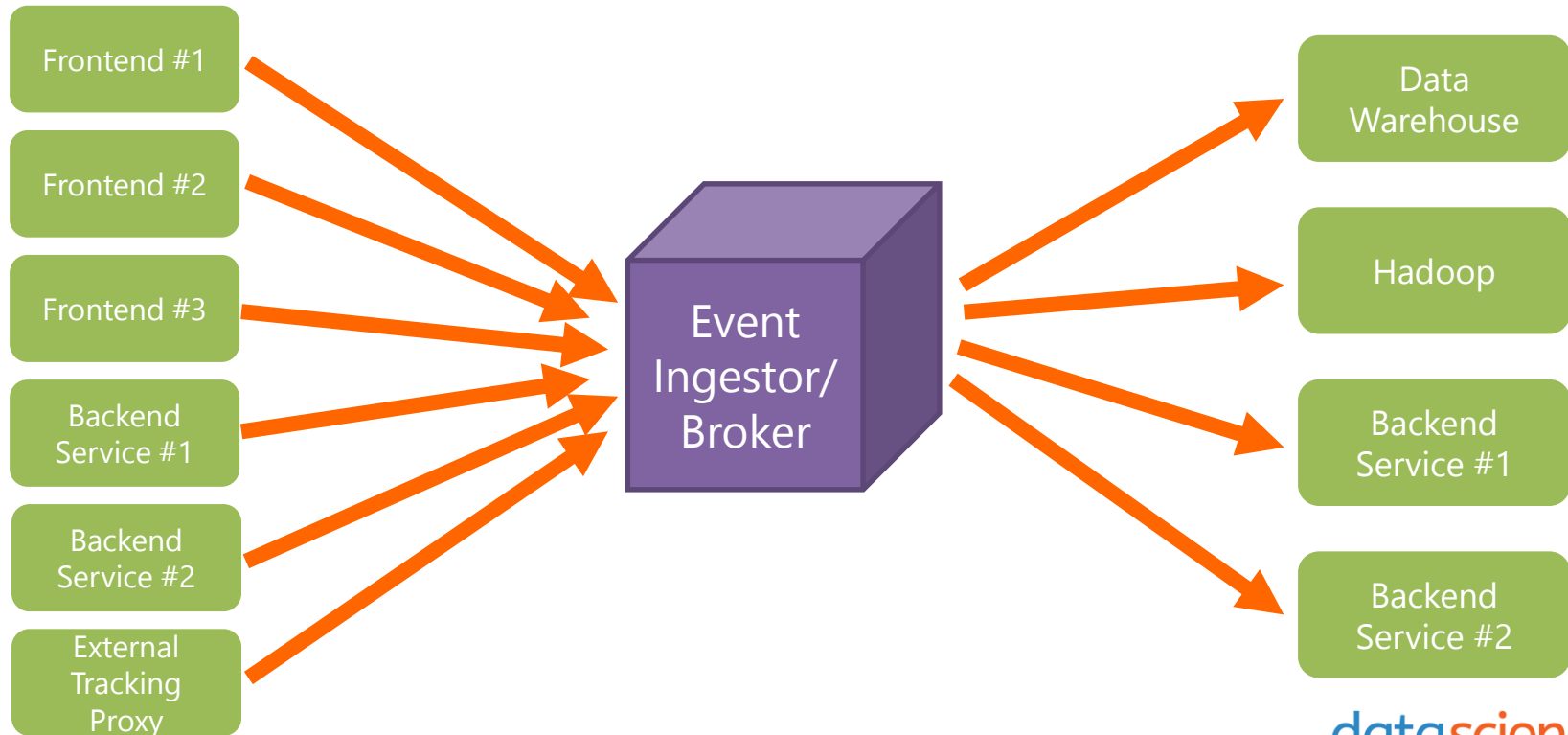




# Data Pipeline Complexity at LinkedIn



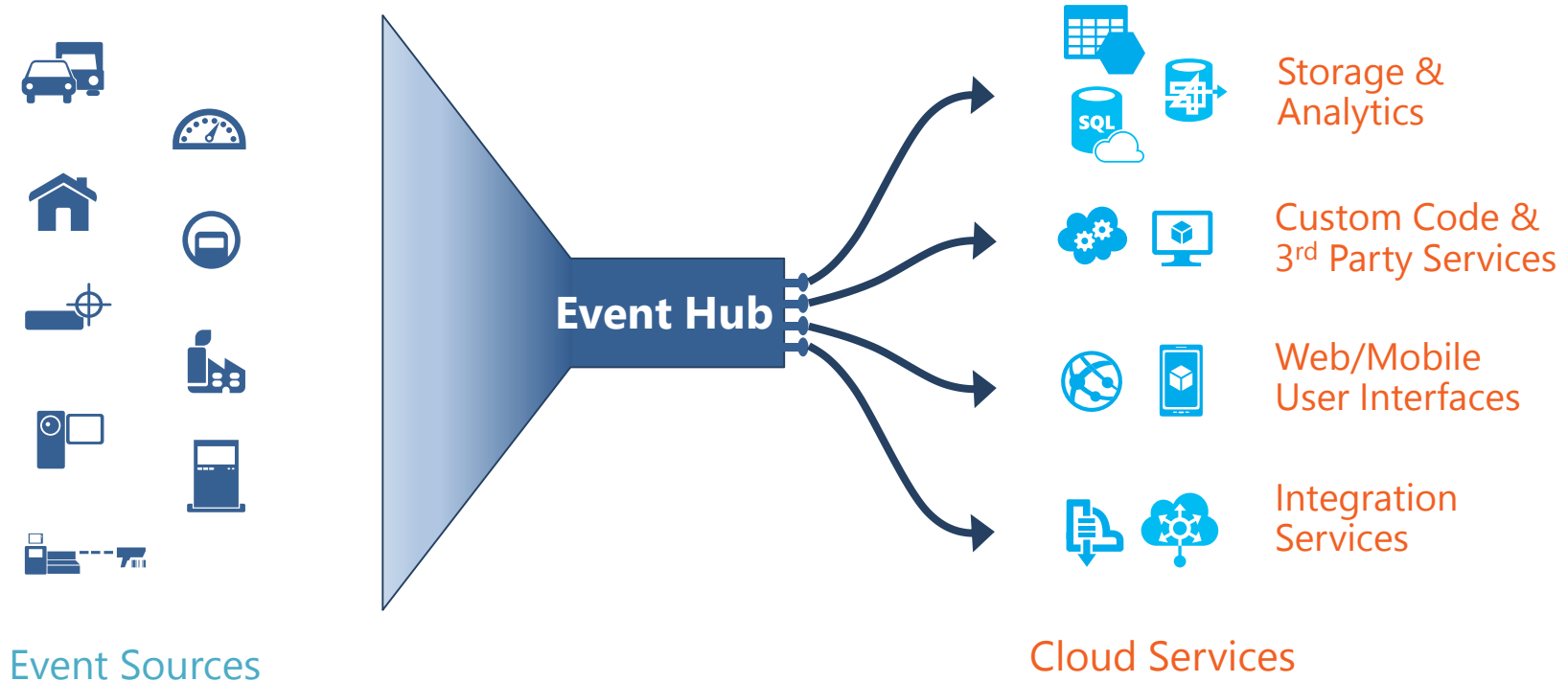
# Data Pipeline Complexity at LinkedIn



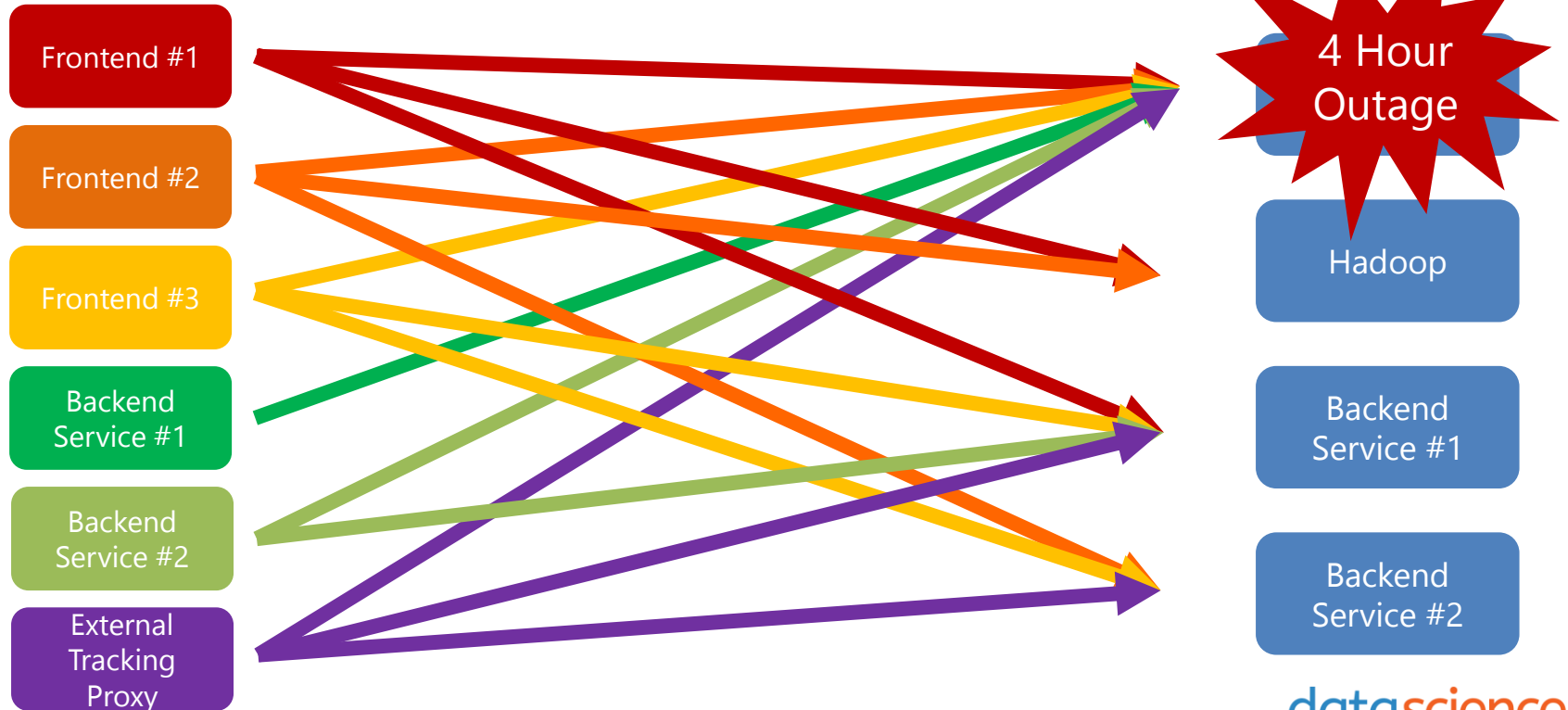
# Popular Event Brokers



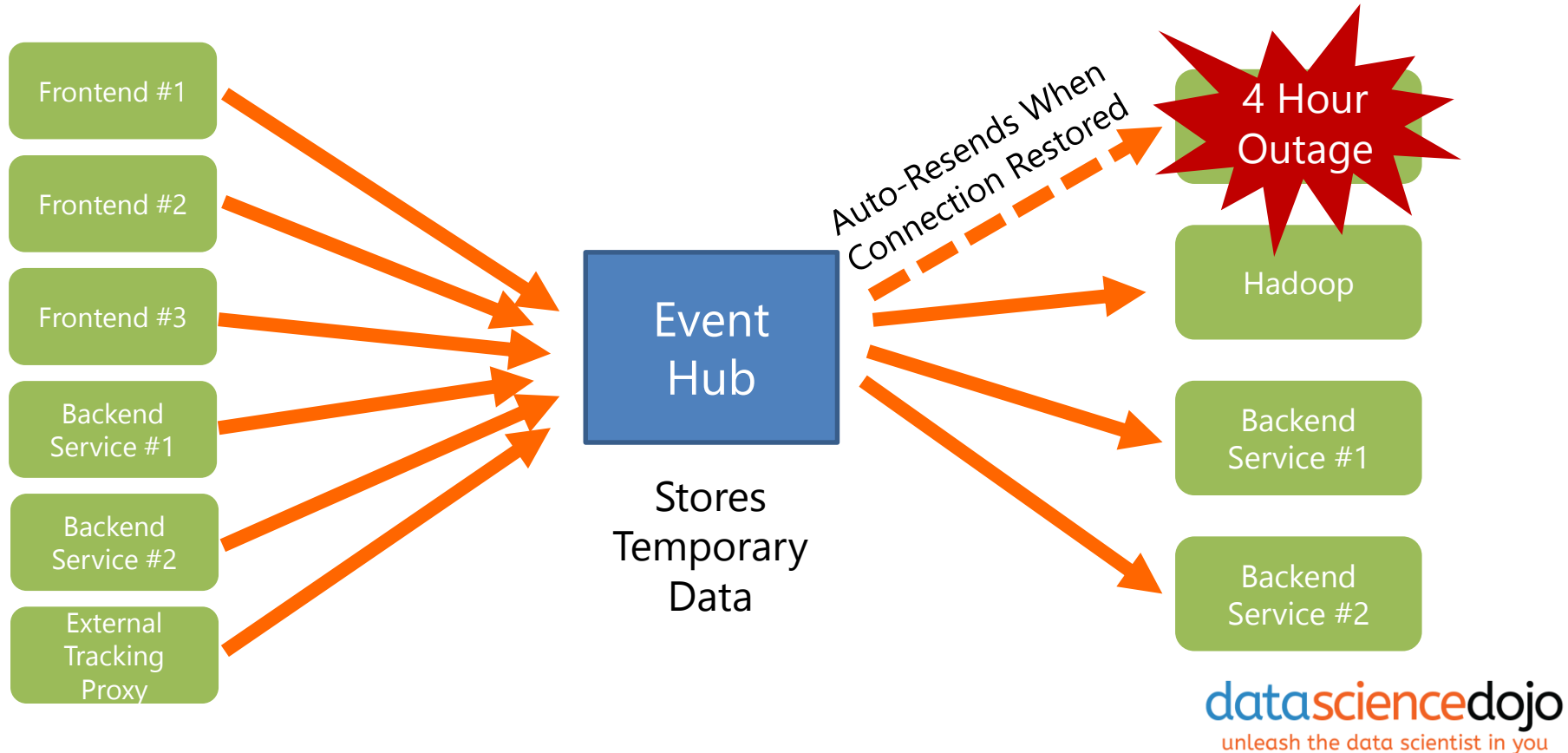
# Event Hub for IoT: Big Data Ingestion



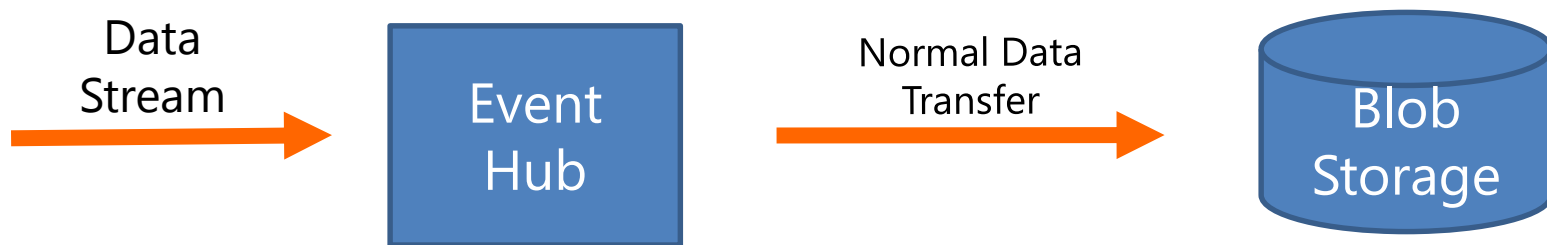
# Server Down



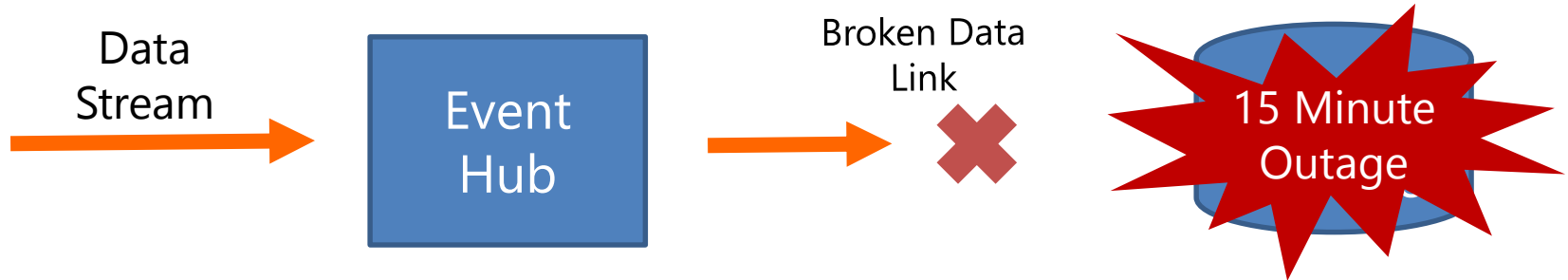
# Temporary Storage



# Demo: Normal Scenario

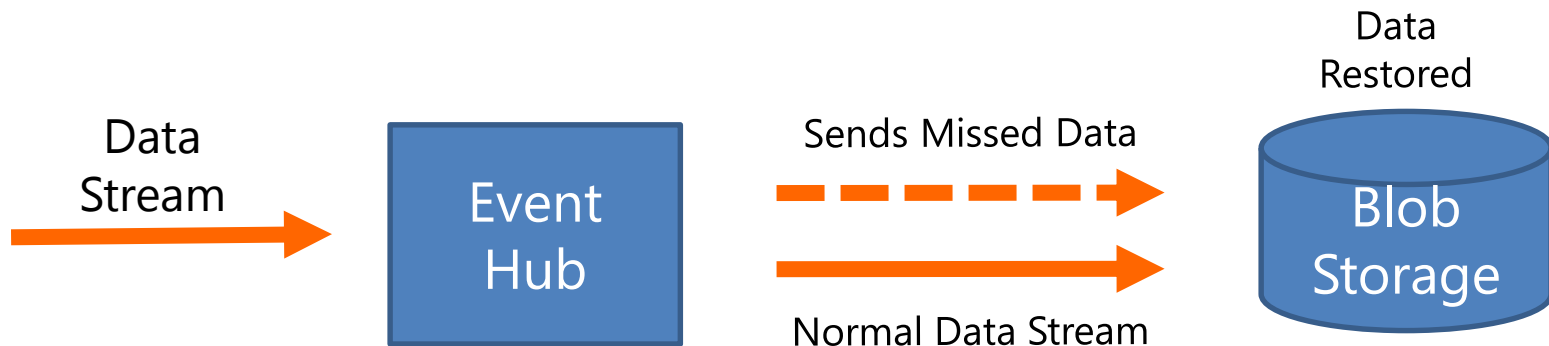


# Demo: Output Downage





# Demo: Output Restored

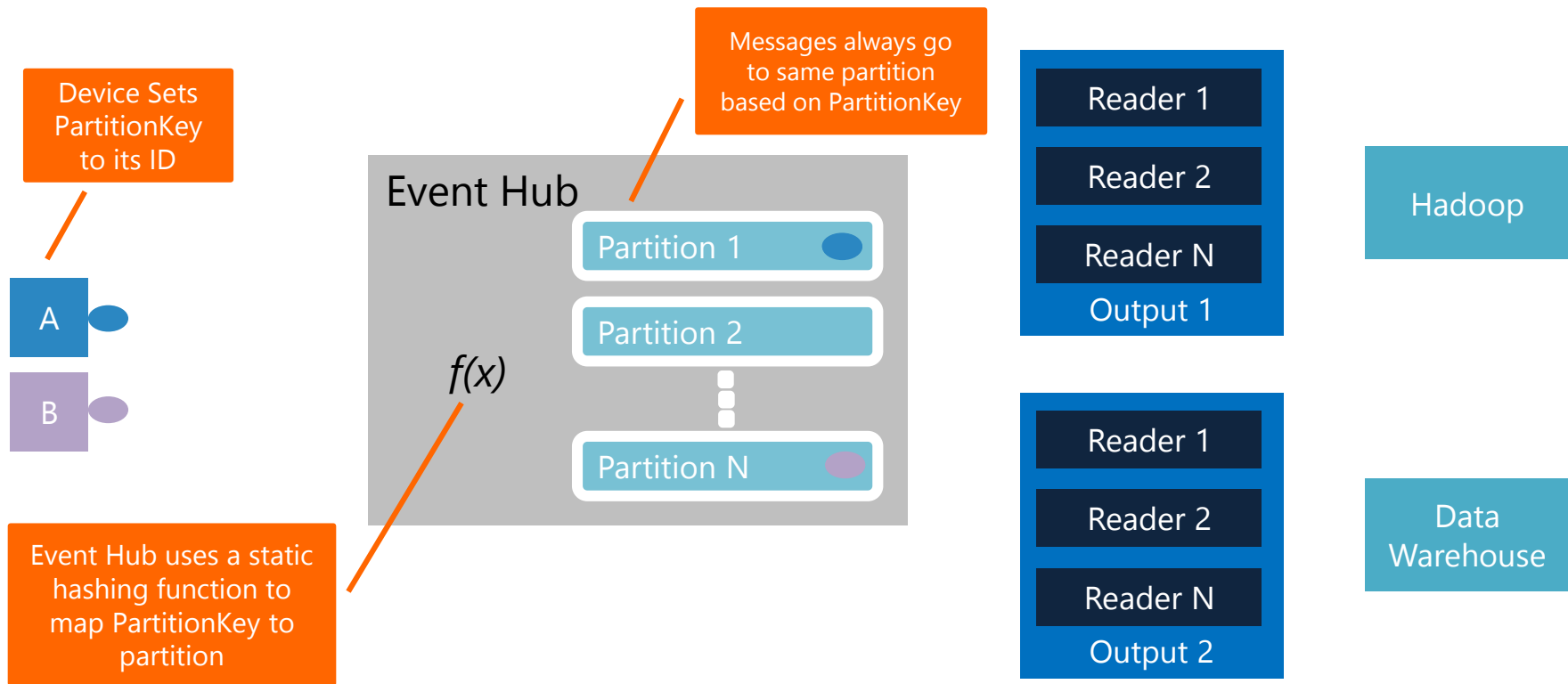


# The Post Office



- Tracks address changes
- Tries again tomorrow if send failed
- Holds packages in short term
  - Too many failed deliveries
  - Vacations
- Reduces complexity through specialization

# Event Hub, Stream Management



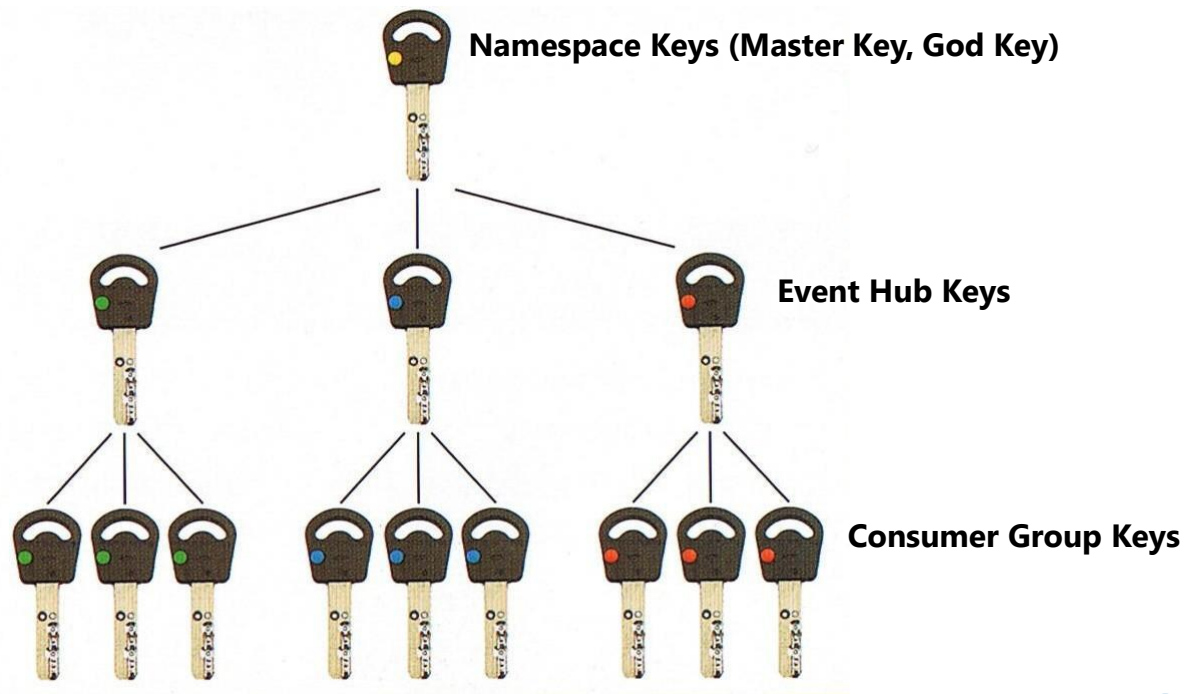
# Service Bus Namespace

Service Bus Namespace

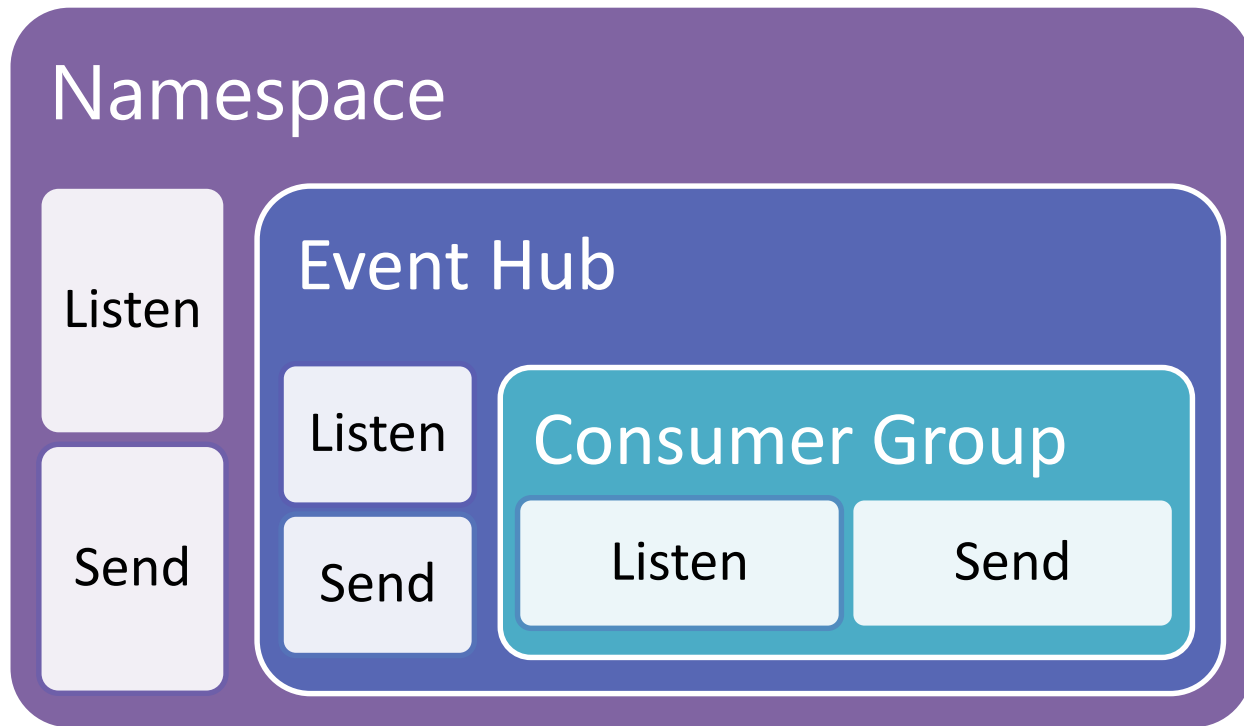
Event Hub

Event Hub

# Access Rights, Policy, Keys



# Access Rights



# Supported Languages

Documentation Available



Supported But Documentation Still Pending



python



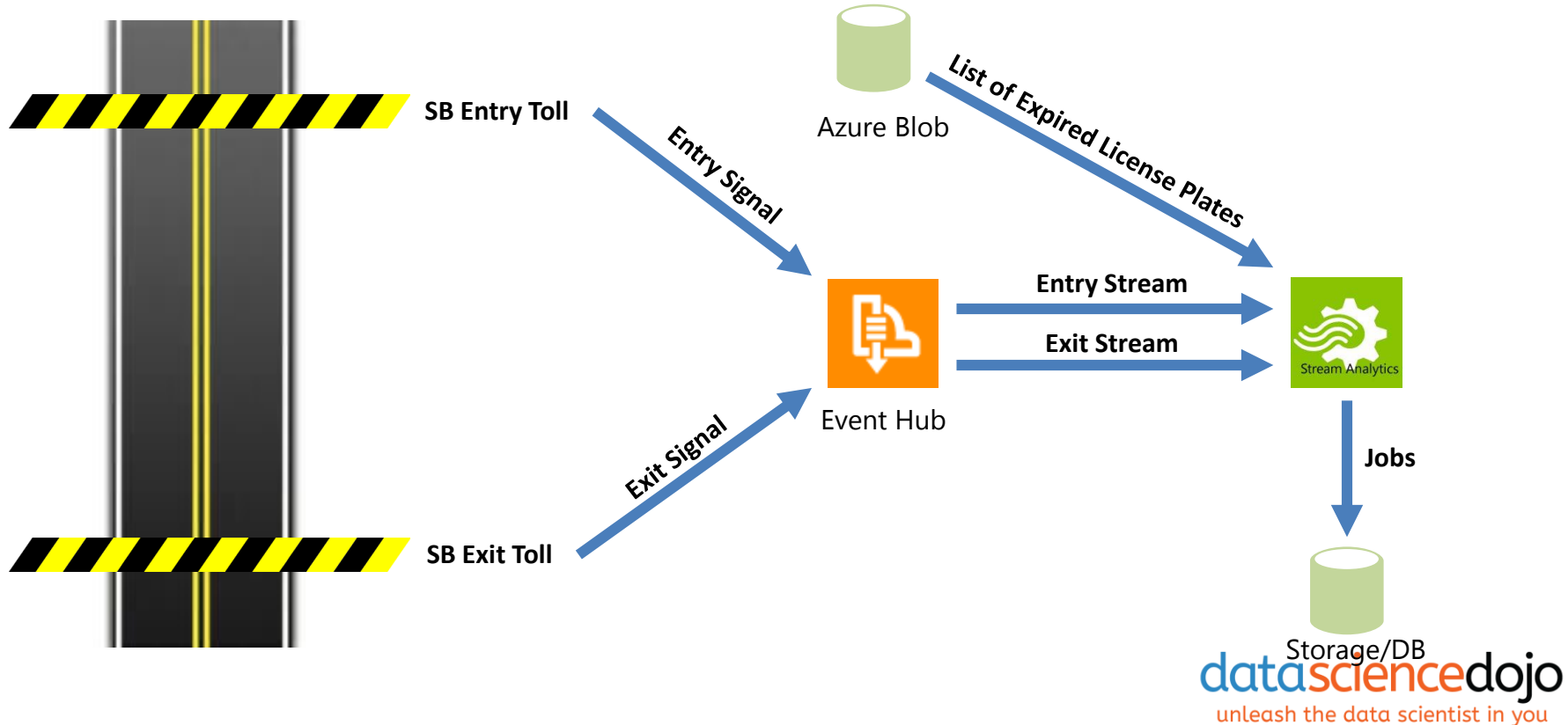
# Hands-On Lab



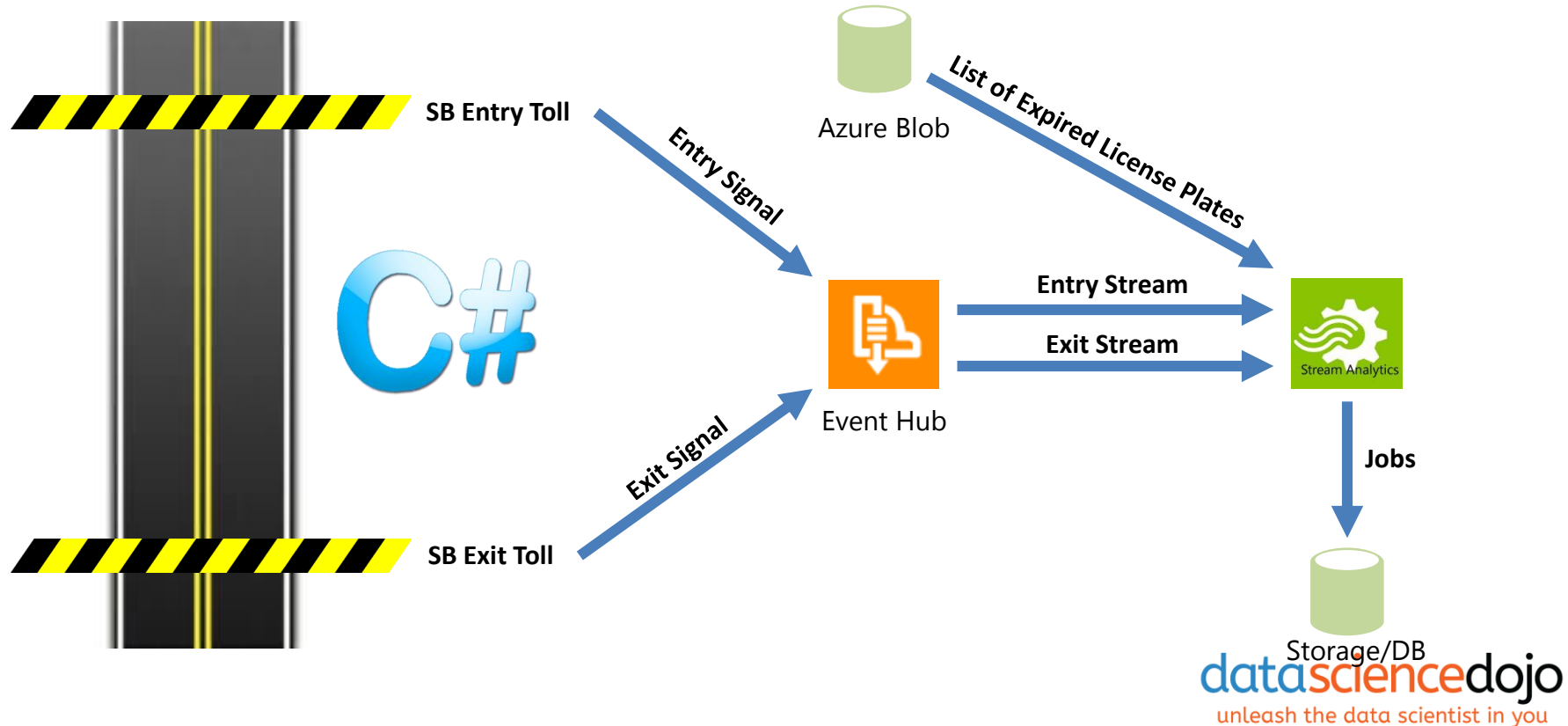
# Tolls on I-405



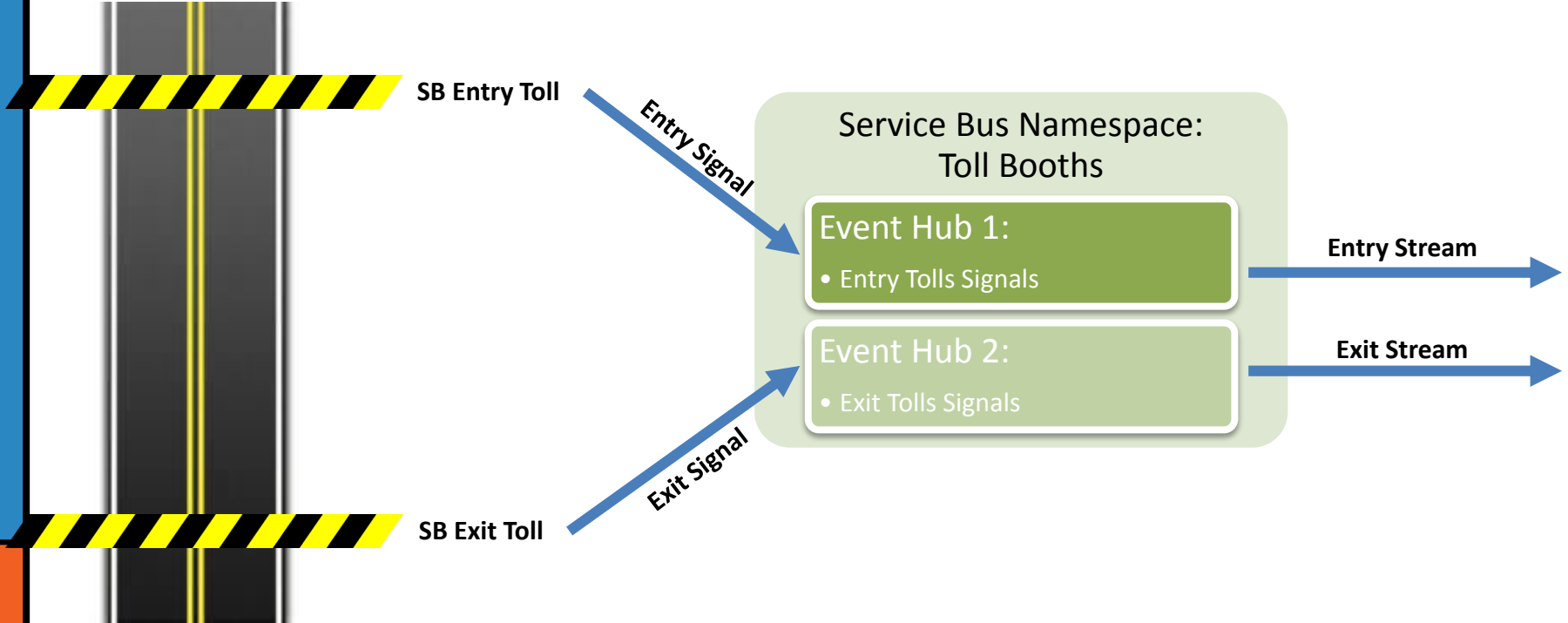
# Automated Tolloed Road Demo



# Streaming to Event Hub



# Inside the Event Hub



# QUESTIONS