

# Possibilities are Endless

When Powered by Observability data



# Observability ≠ Incident Troubleshooting

Or even the three pillars



Topology



Traces



Metrics



Logs



Behavior



Code



Metadata



Network



Security Events



Threats

"Observability is no longer just about keeping systems up  
– it's about understanding how technology drives business  
outcomes."

*Gartner, Observability Trends*

# Observability for Developers

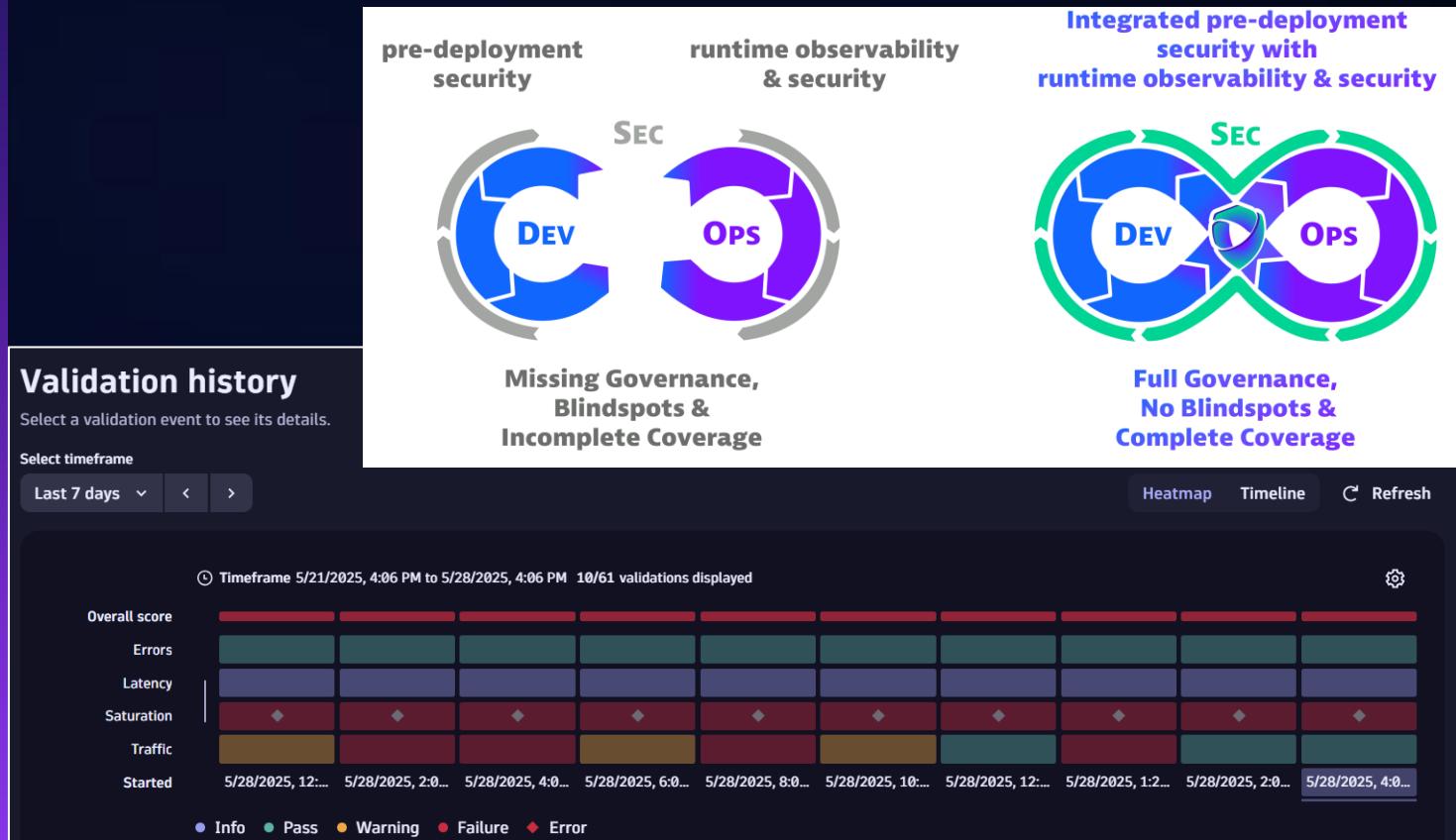


# What: Quality / Security Gates

## Who: All

## How:

- Observability built-in throughout SDLC
- Tracking key SLOs with every deployment / build
- Automatic failure / success of each stage based on this
- Ensuring drift does not take place



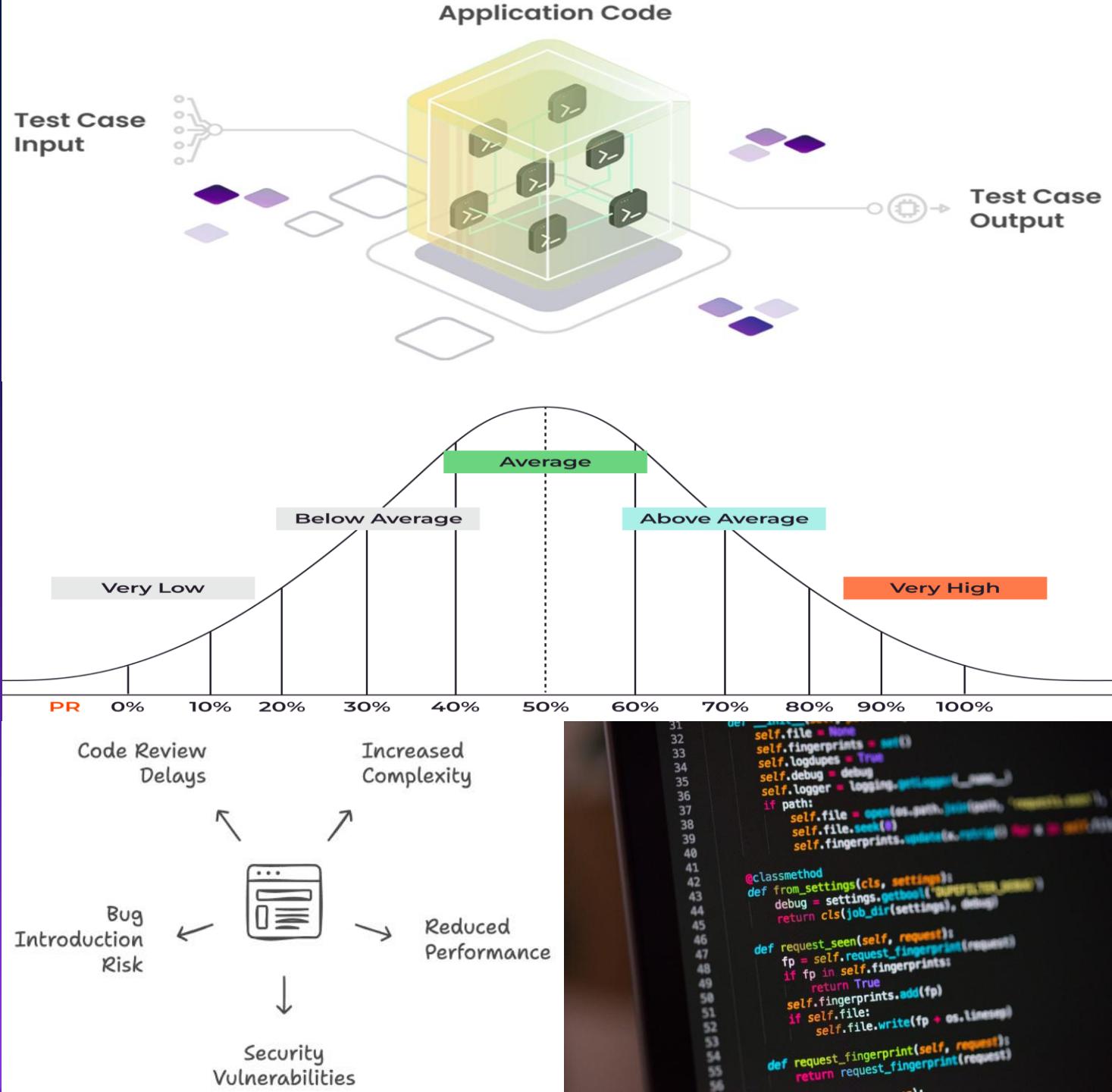
## What:

- White box testing
- Test data collection
- Performance benchmarking
- Dead code detection
- Chaos monkey guardrails
- Learning the code
- Troubleshooting

## Who: All

## How:

- Full visibility into the code and access to real-time data and runtime behaviour insights

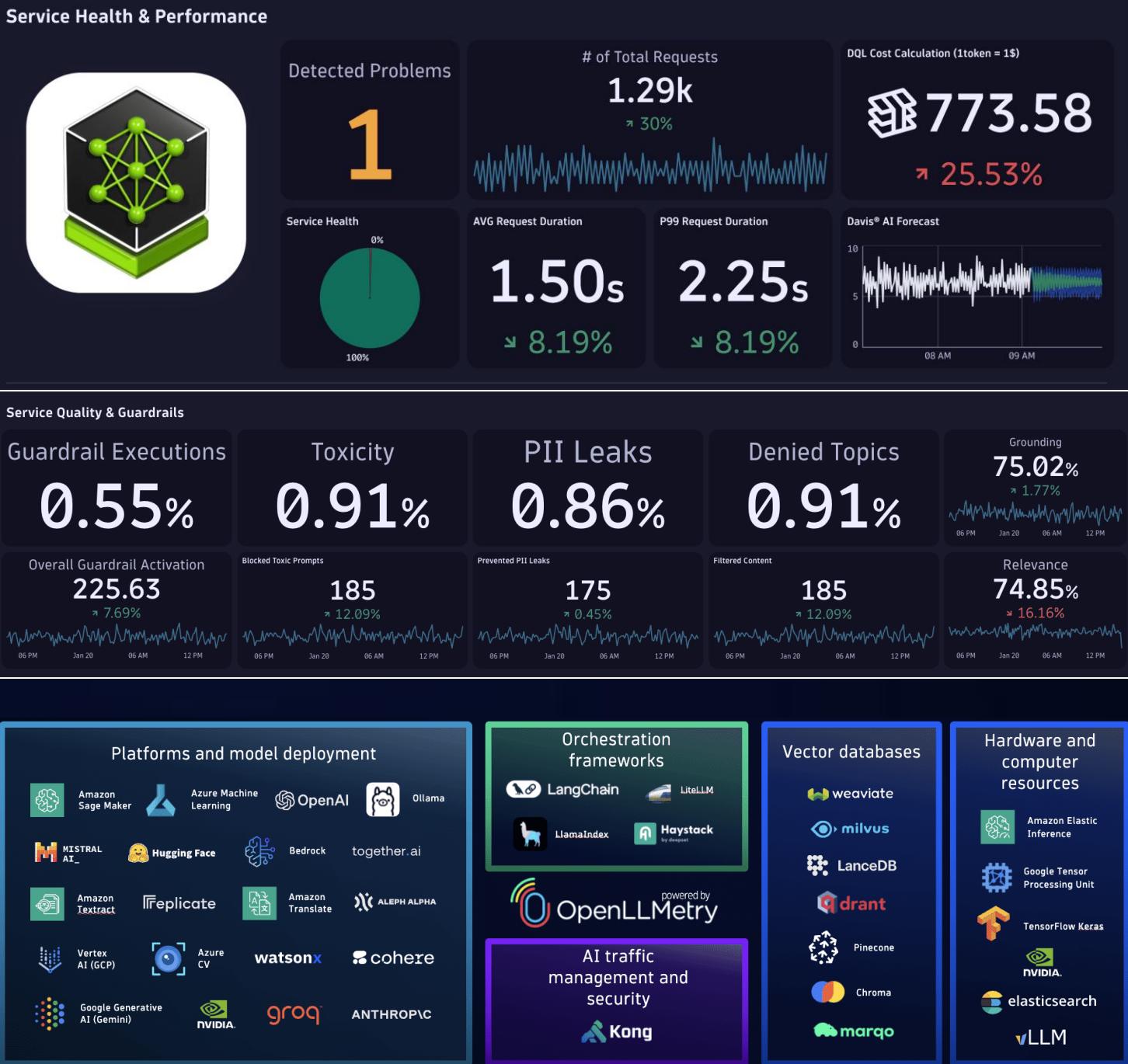


# What: AI Observability

## Who: All

### How:

- Nearly  $\frac{1}{2}$  of all AI capabilities are custom built
- $\frac{2}{3}^{\text{rd}}$  of AI projects are not yet in Production
- Multi-modal tracing for complex AI
- Predictive Operations for cost and latency optimisations
- Guardrail analysis to ensure compliance, security and quality
- Full governance



# Observability- driven Security



What: Observability of Fraud Systems

Who: All

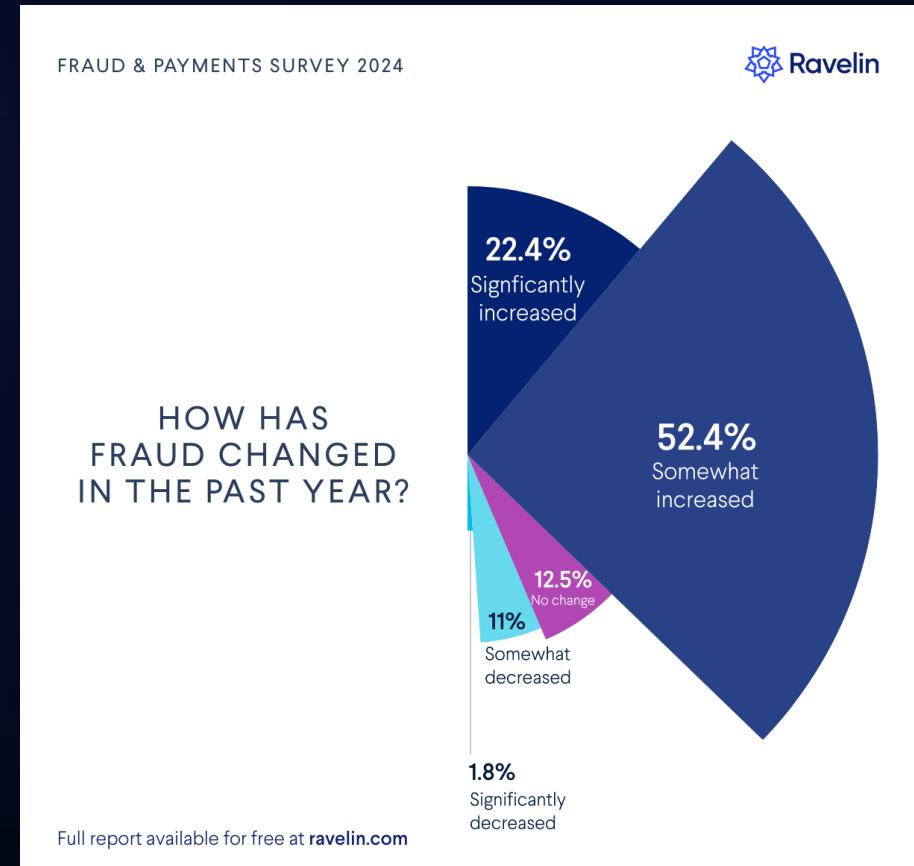
How:

- Failure/slowdown in Fraud systems do not block transactions
- Observability often forgotten about
- Lead to increased successful fraud and hence revenue loss



## 2023 State of Omnichannel Fraud Report

- 4.6% of all customers' digital transactions globally were suspected to be fraudulent
- 7.2% in Retail industry

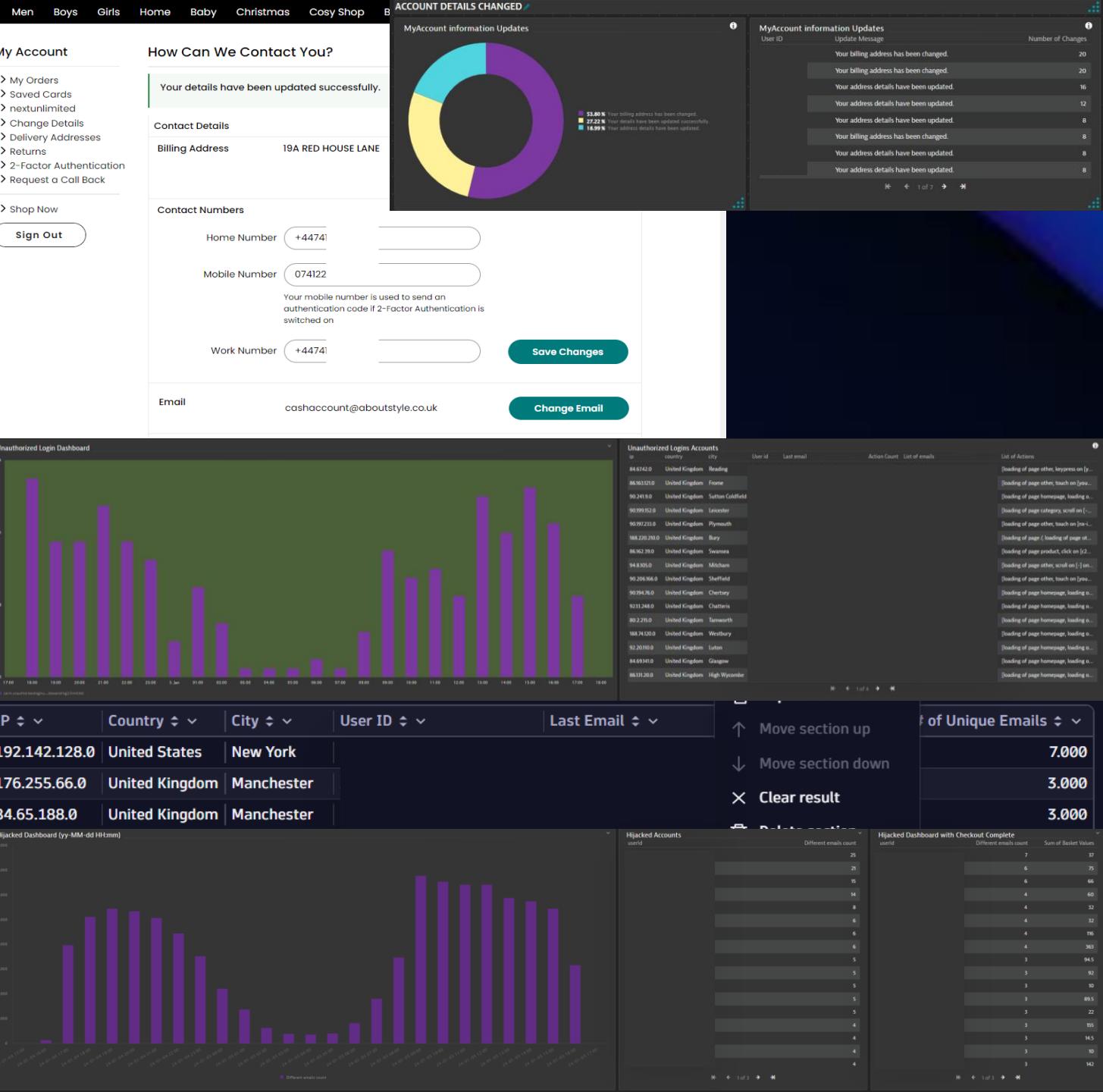


## What: Fraud Detection

Who: All

How:

- Detect users updating contact details multiple times
- Unauthorized logins
- Hijacked accounts – multiple intents with different logins – notify users of possible hijacking
- Generally, lead to further investigation (e.g. session replay)

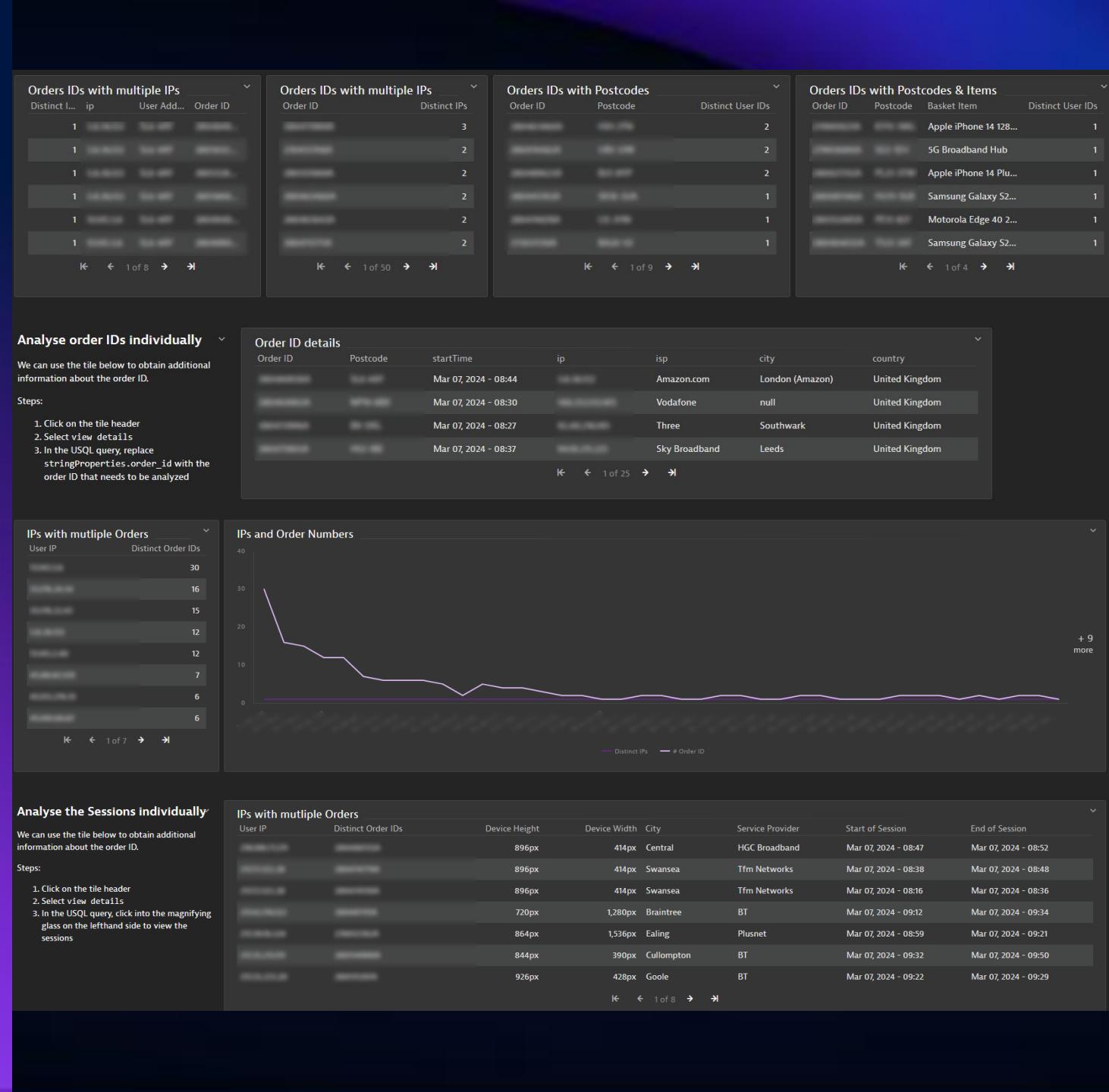


# What: Fraudulent Purchases

## Who: Retail (primarily for this specific one)

### How:

- By mapping the device specs, with IPs, Order IDs and time on site you can understand true user behavior versus malicious intent
- UK Telco saved £100k in first week and had 2 people arrested



# What: Runtime Vulnerabilities & Attacks

Who: All

How:

- Live visibility in Prod and NonProd
  - Understand when fixed
  - Identify new 3<sup>rd</sup> party vulnerabilities instantly
- Prioritization based on exposure
- No scanning overhead
- Visibility of exploit attempts

The screenshot displays a comprehensive security analysis for a specific vulnerability. At the top, a banner indicates a **SQL injection at RelationalCommand+<ExecuteReaderAsync>d\_18.MoveNext()** found in **S-2024 | BrokerService.dll broker-service**. The main interface is divided into several sections:

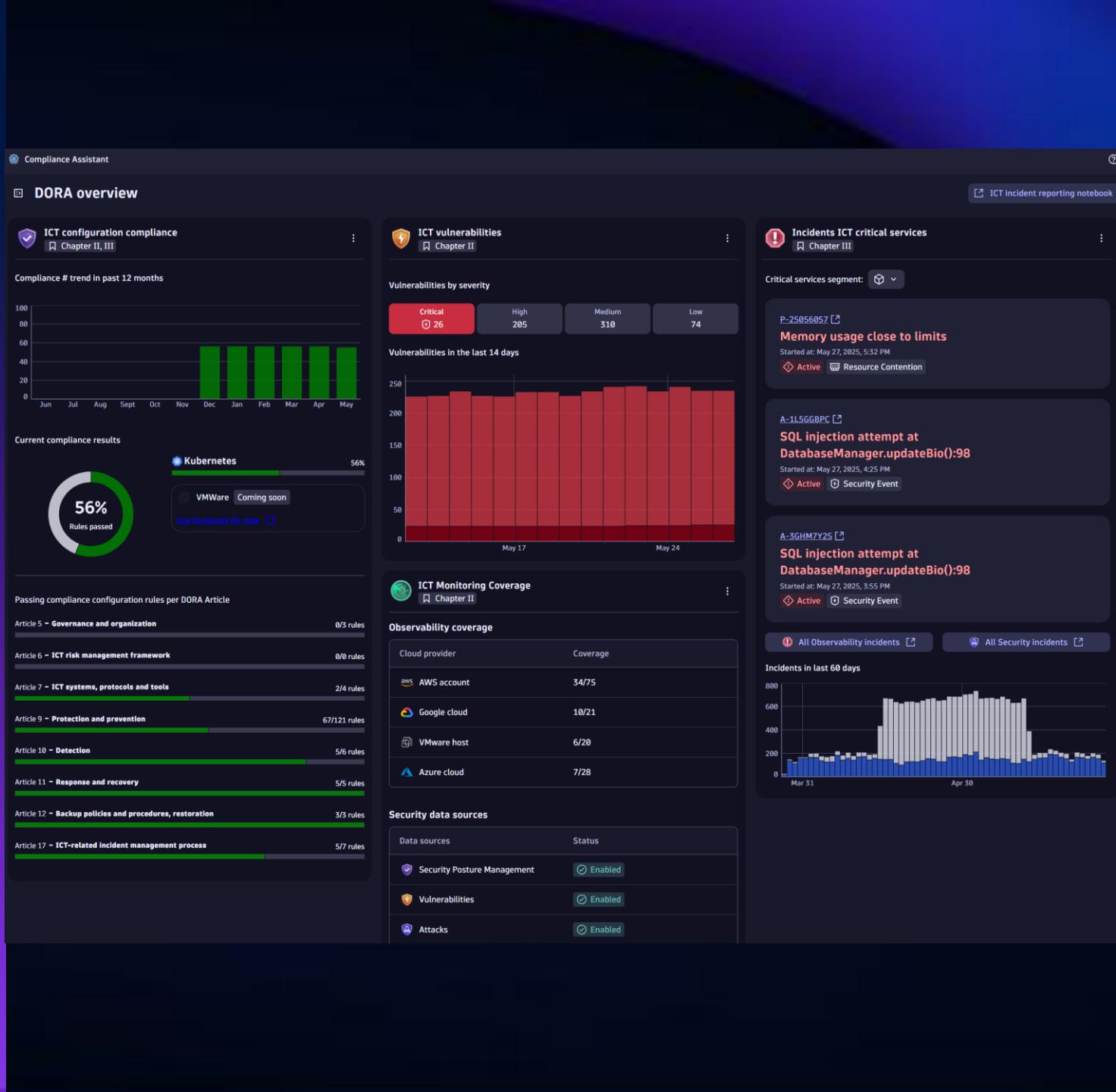
- Davis Security Score:** Shows a **10.0** (Critical risk) with a shield icon and a note: "Code-level vulnerability".
- Open:** Status is **Open** since **May 23, 2025, 7:52 PM** (4 days ago).
- Davis Assessment:** Includes icons for **Public internet exposure** (not detected), **Reachable data assets** (none within range), **Vulnerable functions** (not in use), and **Public exploit** (published).
- Details:** Lists **Processes** (1 affected), **Type** (SQL injection), **Technology** (.NET), and **Exploit attempts** (0).
- Attack vector:** Shows **Actor IPs** (159.104.0.163), **Entry point** (/image), **Vulnerability** (Command injection at ProxyController.proxyUrlWithCurl():163), and **Target** (ip-172-31-3-14.ec2.internal).
- Davis Security Score calculation:** Base: 8 High risk vulnerability CVSS score. Davis analysis: Calculation (Davis calculated a score for each affected entity based on CVSS and risk factors. The highest score of all entities is used as the vulnerability score). Entities with highest score: **SpringBoot org.dynatrace.ssrfservice.Application ungu...** (Davis Security Score: Medium 6.8) and **SpringBoot org.dynatrace.microblog.Application ungu...** (Davis Security Score: Medium 6.8).
- Impact on DSS calculation:** Result: 6.8 Medium risk vulnerability Davis Security Score. Calculations are run every 15 minutes. For details, see [Davis Security Score Documentation](#).
- Related entities:** Lists **Related entity** and **Count**: Applications (0), Services (2), Hosts (1), Databases (2). **Related databases:** [gks][easytrade-live-debugger] TradeManagement (2), TradeManagement (2). **Related Kubernetes workloads:** Kubernetes workloads (1). **Related Kubernetes workloads:** Affected process groups broker-service (1). **Related Kubernetes clusters:** Kubernetes clusters (1).
- Vulnerable functions:** Lists **Class**, **Vulnerable function**, **Function usage**, and **PGs** for three entries:
  - org.springframework.web.util.UrlPathHelper**: removeSessionId (In use: 2, Not in use: 0, Not available: 0)
  - org.springframework.web.util.UrlPathHelper**: removeSemicolonContent (In use: 2, Not in use: 0, Not available: 0)
  - org.springframework.web.util.WebUtils**: parseMatrixVariables (In use: 0, Not in use: 2, Not available: 0)

# What: Operational Resilience & Compliance

Who: All

How:

- Operational Resilience in tech landscape falls into:
  - Visibility coverage
  - Security compliance
  - Incident Management



# Business Observability

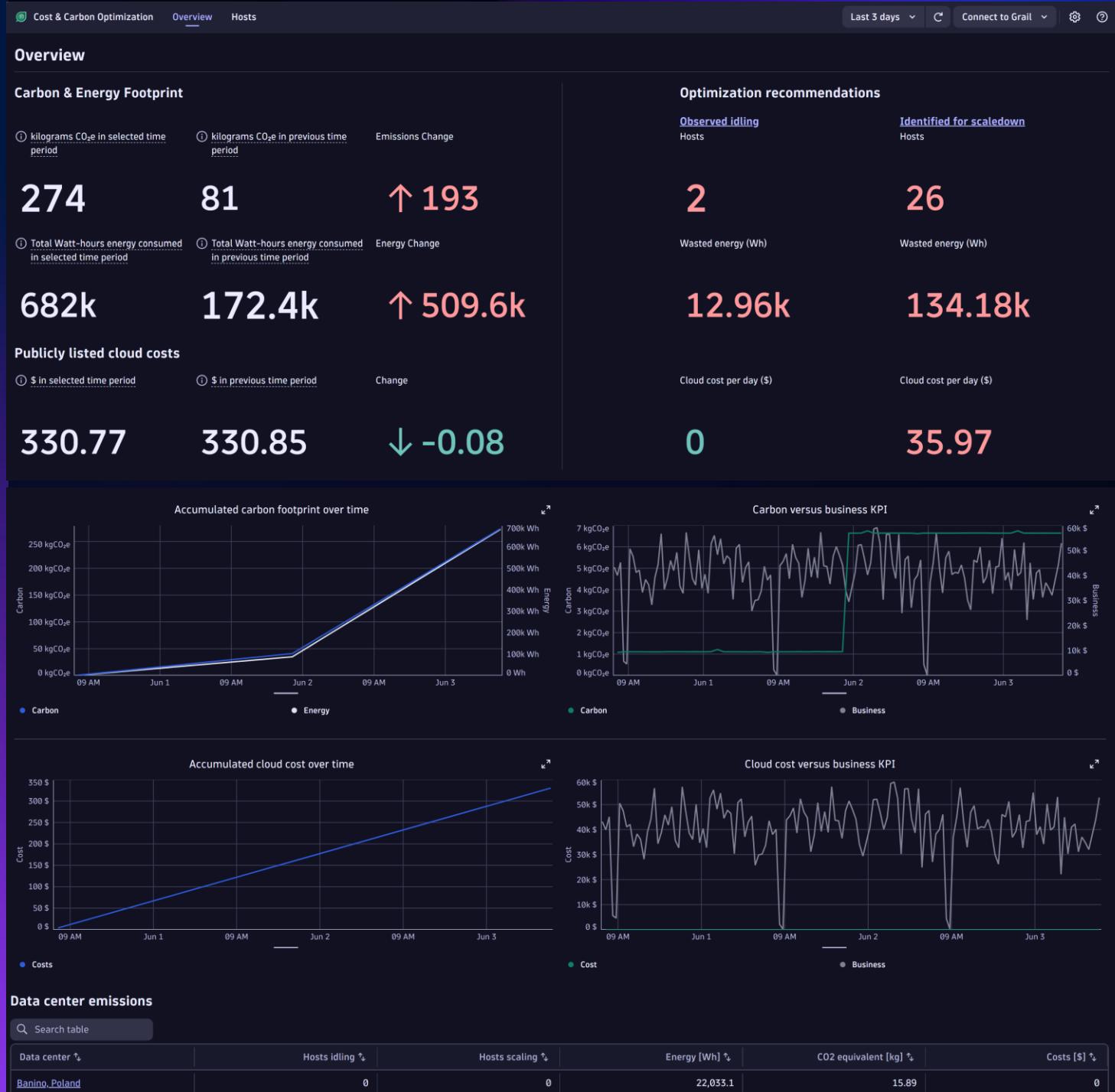


# What: Carbon & Cost Optimisation

Who: All

How:

- Combining insights into CPU / memory / disk / network usage etc enables calculation of power usage
- Green energy mix percentages publicly available for cloud regions
- Combined provides a carbon footprint
- Optimisation requires ongoing tracking at a granular level



# What: Delivery Tracking

# Who: Delivery companies

# How:

- Events from traces, APIs etc.
- Unsuccessful deliveries or failed transactions by site, parcel transaction type etc.

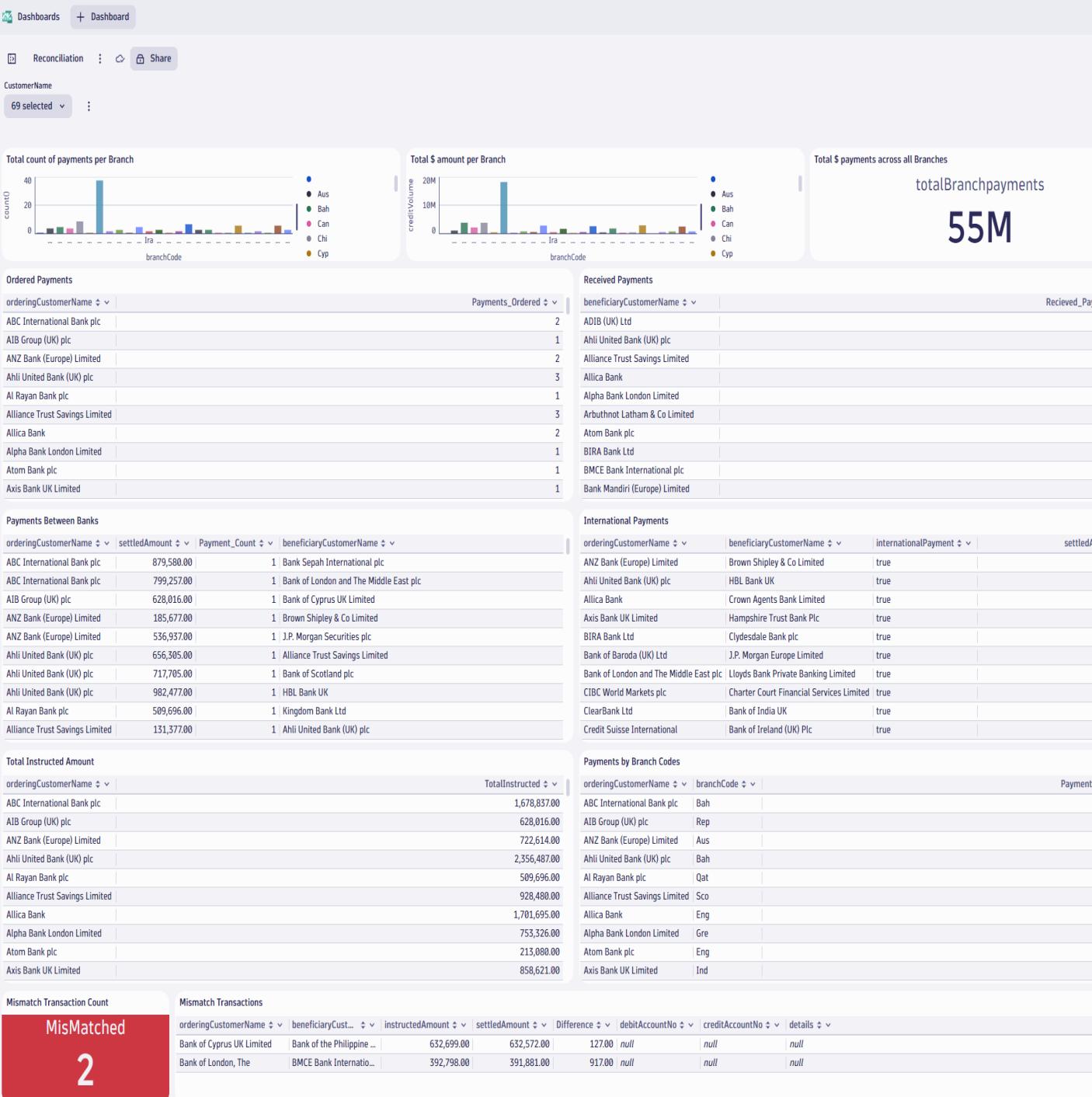


# What: Payment Reconciliation

Who: All (focus on payment providers)

How:

- Often from deep trace data, but could be from logs, events etc.
- Payment/Invoice ID matching to compare instructed and settled amounts.

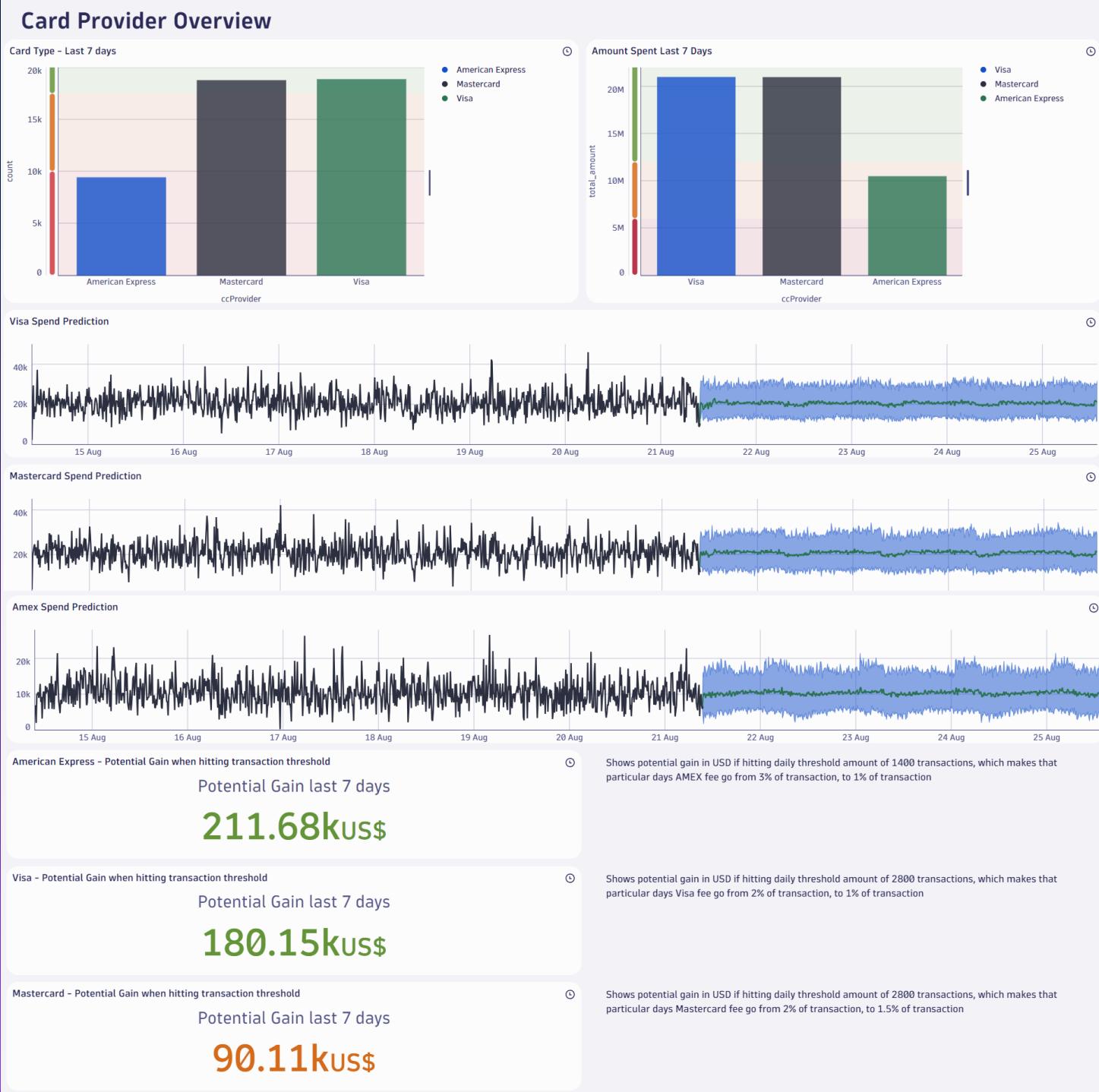


# What: Card Provider Insights

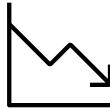
## Who: All (who take card payments)

### How:

- Often from trace data, but could be from logs, events etc.
- Payment transactions and amount split by card provider.



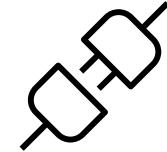
### WHY was this impactful to Vitality?



**65% reduction** in  
customer churn



**£200k saved per year**  
for every 100  
customers retained



Time to integrate with  
new partners cut from **3  
months to 3 weeks**

### WHAT was the key Business process?

- Vitality have a strong engagement with their customer based by encouraging exercise and rewarding it with points.
- These points can then be exchanged for rewards.
- Not getting awarded these points is a big customer frustration, so Vitality partnered with Dynatrace to intelligently solve this problem.

"Being able to proactively reach out and rectify issues for our customers before they've even realized they've had a problem has also created a phenomenal impact in customer retention."

David Priestley, **Chief Digital Officer**

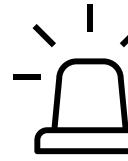
### HOW did they achieve this?



Customer goes for  
a run and records  
the activity



Activity fails to  
provide the customer  
with "points"



Dynatrace identifies  
the issue, support  
teams are notified



Customer support  
pro-actively  
reaches out to the  
customer

# OBSERVABILITY FORUM FINLAND'25

JUNE 4, 2025 | ESPOO

