

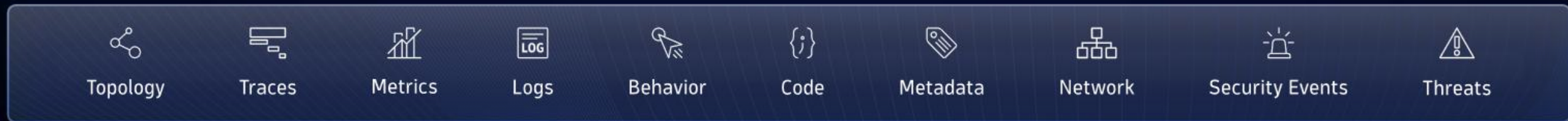
Possibilities are Endless

When Powered by Observability data



Observability ≠ Incident Troubleshooting

Or even the three pillars



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

Gartner, Observability Trends

Observability for Developers

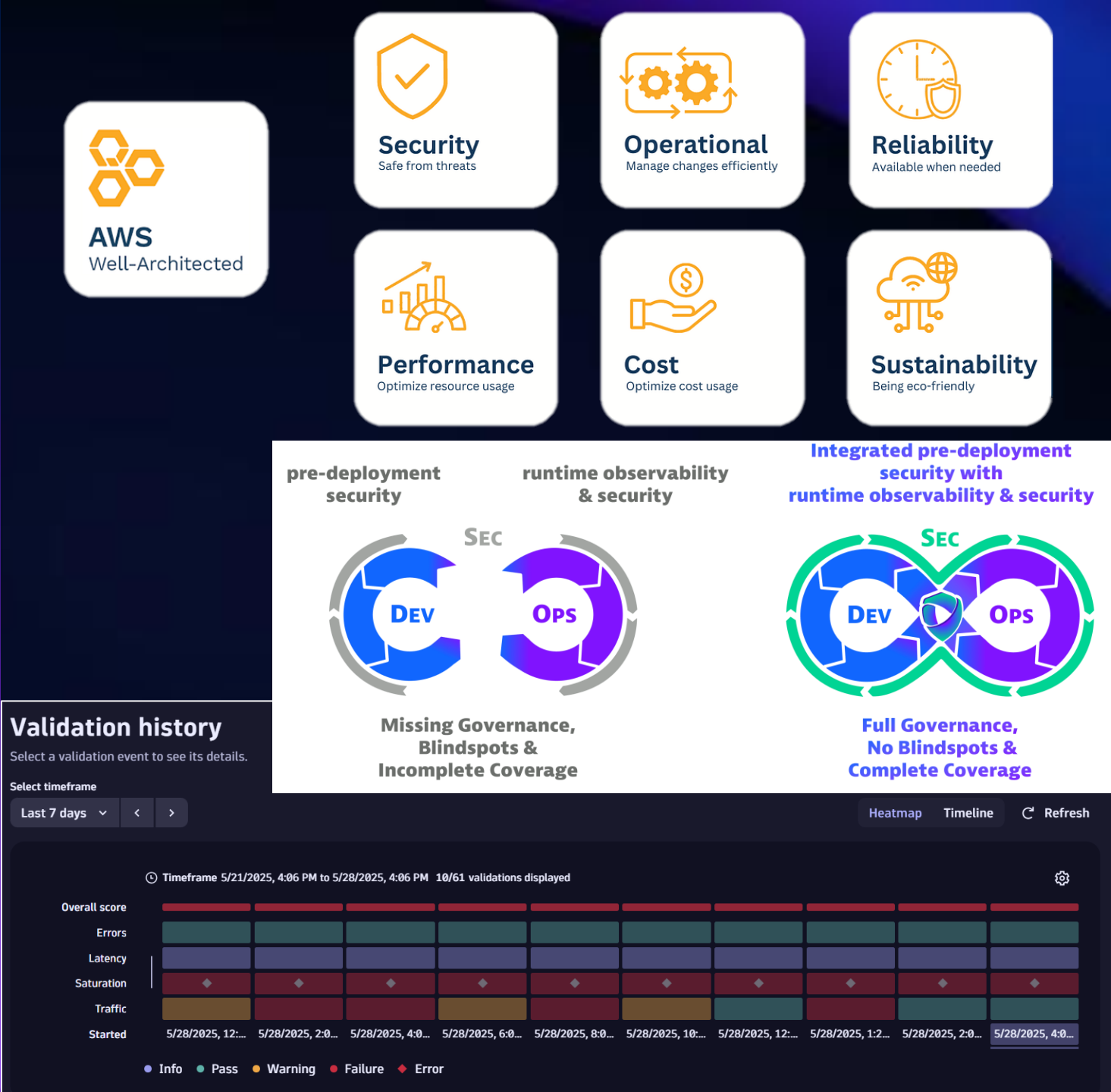


What: Quality / Security Gates

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



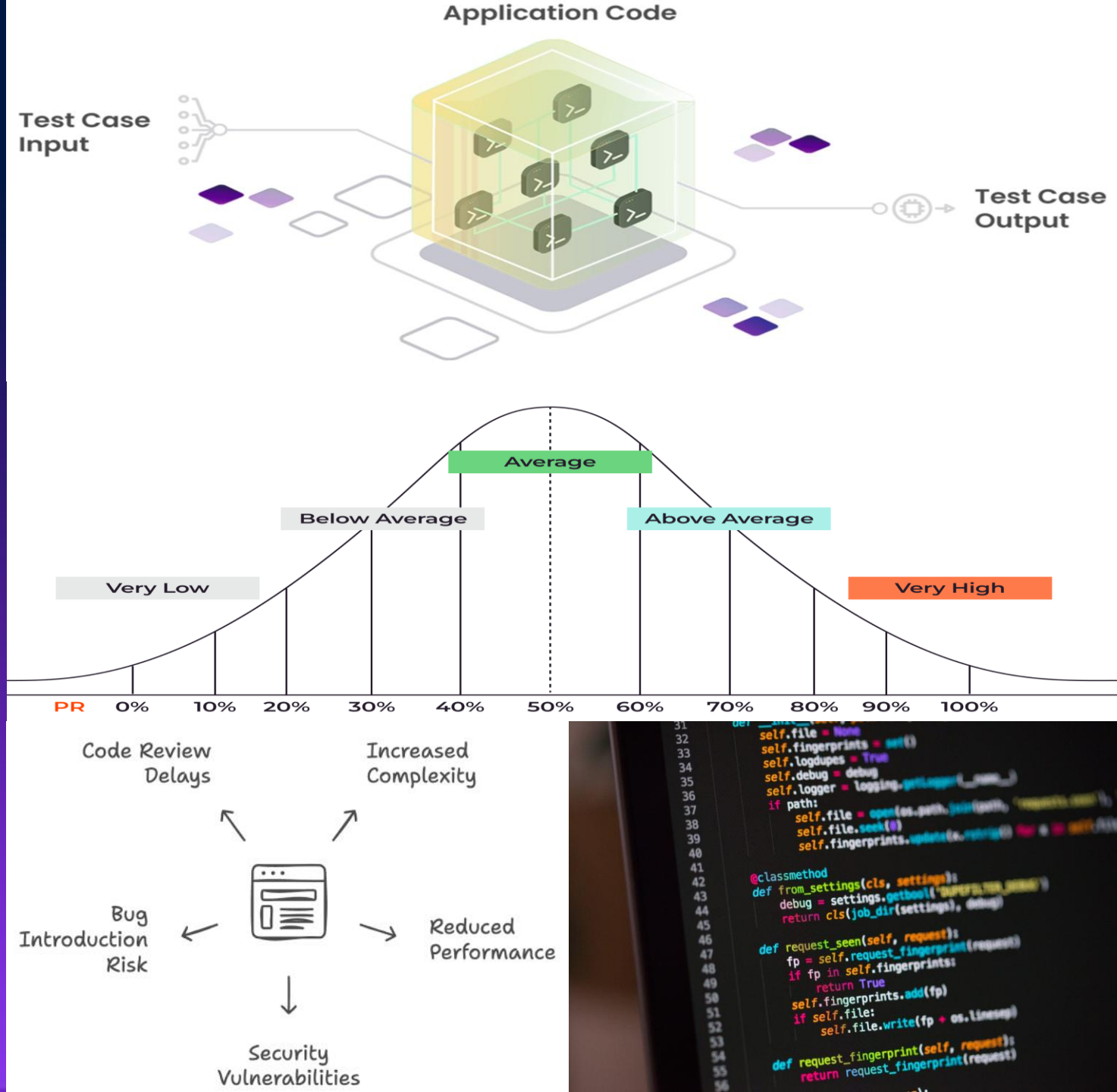
What:

- 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 1/2 of all AI capabilities are custom built
- 2/3rd 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

Service Health & Performance



Detected Problems

1

Service Health



of Total Requests

1.29k

↗ 30%



DQL Cost Calculation (1token = 1\$)

773.58

↗ 25.53%

Davis® AI Forecast



Service Quality & Guardrails

Guardrail Executions

0.55%

Overall Guardrail Activation

225.63

↗ 7.69%



Toxicity

0.91%

Blocked Toxic Prompts

185

↗ 12.09%



PII Leaks

0.86%

Prevented PII Leaks

175

↗ 0.45%



Denied Topics

0.91%

Filtered Content

185

↗ 12.09%



Grounding

75.02%

↗ 1.77%



Relevance

74.85%

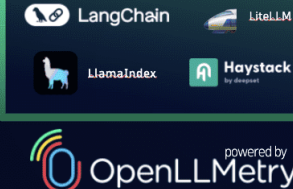
↗ 16.16%



Platforms and model deployment



Orchestration frameworks



Vector databases



Hardware and computer resources



Observability-driven Security



What: Observability of Fraud Systems

Who: All

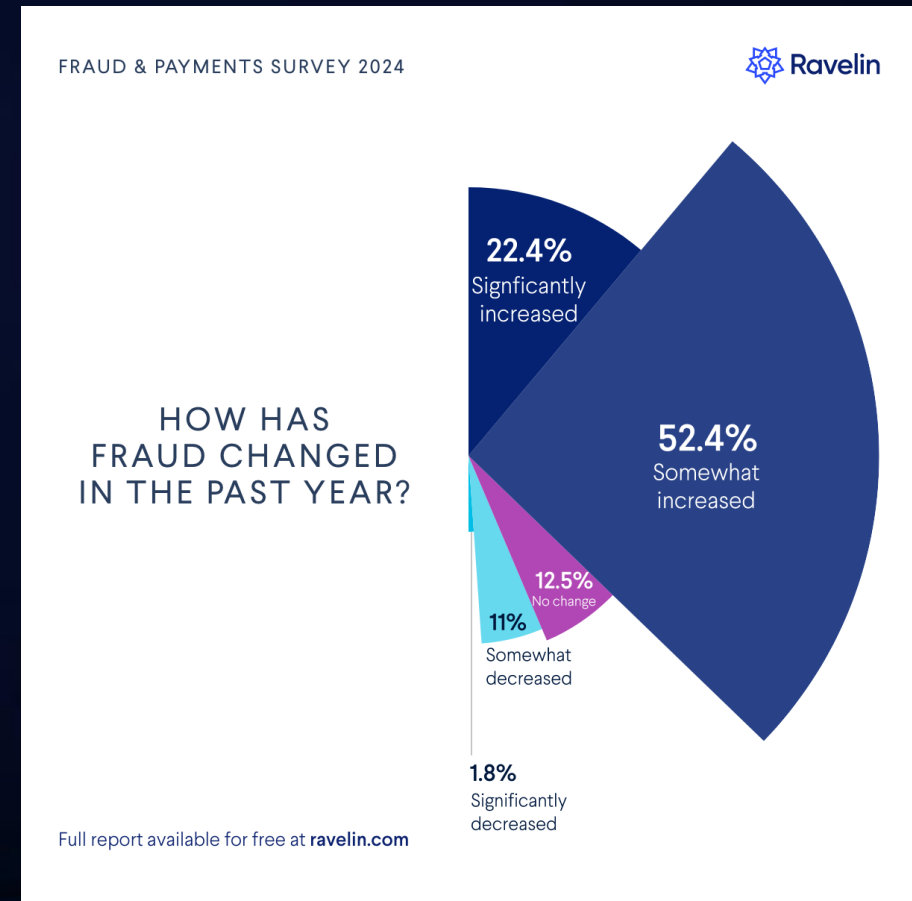
How:

- 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

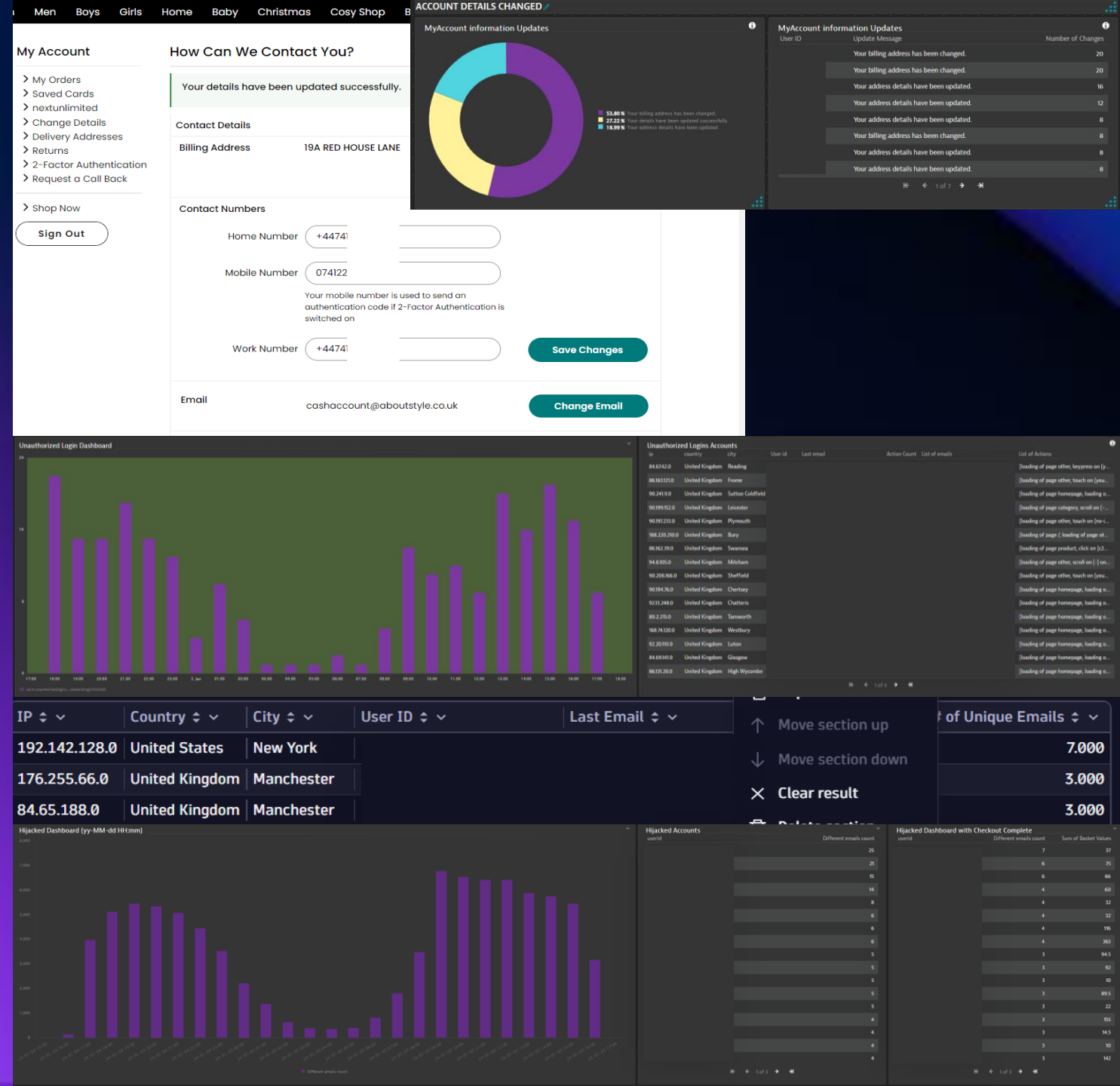


What: Fraud Detection

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

Orders IDs with multiple IPs

Distinct IP...ipUser Add...Order ID

1	10.0.0.1	10.0.0.1	10.0.0.1
1	10.0.0.2	10.0.0.2	10.0.0.2
1	10.0.0.3	10.0.0.3	10.0.0.3
1	10.0.0.4	10.0.0.4	10.0.0.4
1	10.0.0.5	10.0.0.5	10.0.0.5
1	10.0.0.6	10.0.0.6	10.0.0.6

1 of 8

Orders IDs with multiple IPs

Order IDDistinct IPs

10.0.0.1	3
10.0.0.2	2
10.0.0.3	2
10.0.0.4	2
10.0.0.5	2
10.0.0.6	2

1 of 50

Orders IDs with Postcodes

Order IDPostcodeDistinct User IDs

10.0.0.1	10.0.0.1	2
10.0.0.2	10.0.0.2	2
10.0.0.3	10.0.0.3	2
10.0.0.4	10.0.0.4	1
10.0.0.5	10.0.0.5	1
10.0.0.6	10.0.0.6	1

1 of 9

Orders IDs with Postcodes & Items

Order IDPostcodeBasket ItemDistinct User IDs

10.0.0.1	10.0.0.1	Apple iPhone 14 128...	1
10.0.0.2	10.0.0.2	5G Broadband Hub	1
10.0.0.3	10.0.0.3	Apple iPhone 14 Plu...	1
10.0.0.4	10.0.0.4	Samsung Galaxy S2...	1
10.0.0.5	10.0.0.5	Motorola Edge 40 2...	1
10.0.0.6	10.0.0.6	Samsung Galaxy S2...	1

1 of 4

Analyse order IDs individually

We can use the tile below to obtain additional information about the order ID.

Steps:

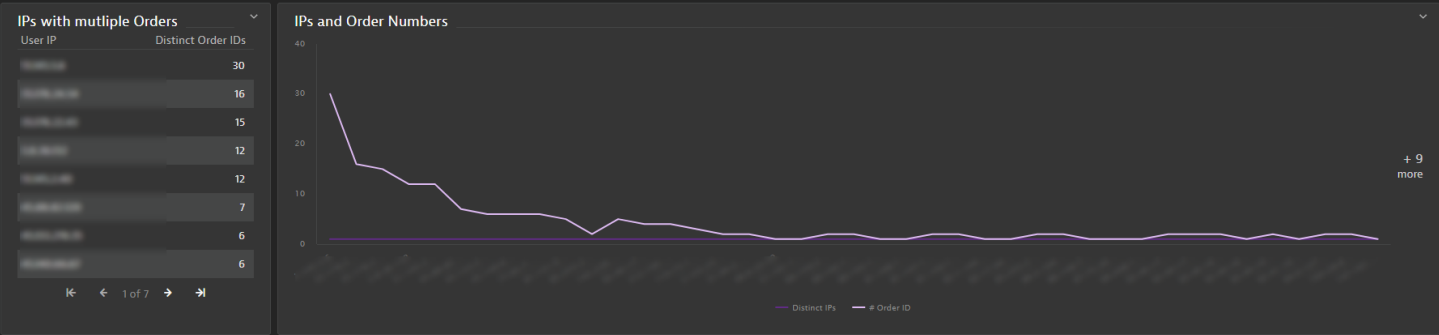
1. Click on the tile header
2. Select view details
3. In the USQL query, replace stringProperties.order_id with the order ID that needs to be analyzed

Order ID details

Order IDPostcodestartTimeipispcitycountry

10.0.0.1	10.0.0.1	Mar 07, 2024 - 08:44	10.0.0.1	Amazon.com	London (Amazon)	United Kingdom
10.0.0.2	10.0.0.2	Mar 07, 2024 - 08:30	10.0.0.2	Vodafone	null	United Kingdom
10.0.0.3	10.0.0.3	Mar 07, 2024 - 08:27	10.0.0.3	Three	Southwark	United Kingdom
10.0.0.4	10.0.0.4	Mar 07, 2024 - 08:37	10.0.0.4	Sky Broadband	Leeds	United Kingdom

1 of 25



Analyse the Sessions individually

We can use the tile below to obtain additional information about the order ID.

Steps:

1. Click on the tile header
2. Select view details
3. In the USQL query, click into the magnifying glass on the lefthand side to view the sessions

IPs with multiple Orders

User IPDistinct Order IDsDevice HeightDevice WidthCityService ProviderStart of SessionEnd of Session

10.0.0.1	10.0.0.1	896px	414px	Central	HGC Broadband	Mar 07, 2024 - 08:47	Mar 07, 2024 - 08:52
10.0.0.2	10.0.0.2	896px	414px	Swansea	Tfm Networks	Mar 07, 2024 - 08:38	Mar 07, 2024 - 08:48
10.0.0.3	10.0.0.3	896px	414px	Swansea	Tfm Networks	Mar 07, 2024 - 08:16	Mar 07, 2024 - 08:36
10.0.0.4	10.0.0.4	720px	1,280px	Braintree	BT	Mar 07, 2024 - 09:12	Mar 07, 2024 - 09:34
10.0.0.5	10.0.0.5	864px	1,536px	Ealing	Plusnet	Mar 07, 2024 - 08:59	Mar 07, 2024 - 09:21
10.0.0.6	10.0.0.6	844px	390px	Cullompton	BT	Mar 07, 2024 - 09:32	Mar 07, 2024 - 09:50
10.0.0.7	10.0.0.7	926px	428px	Goole	BT	Mar 07, 2024 - 09:22	Mar 07, 2024 - 09:29

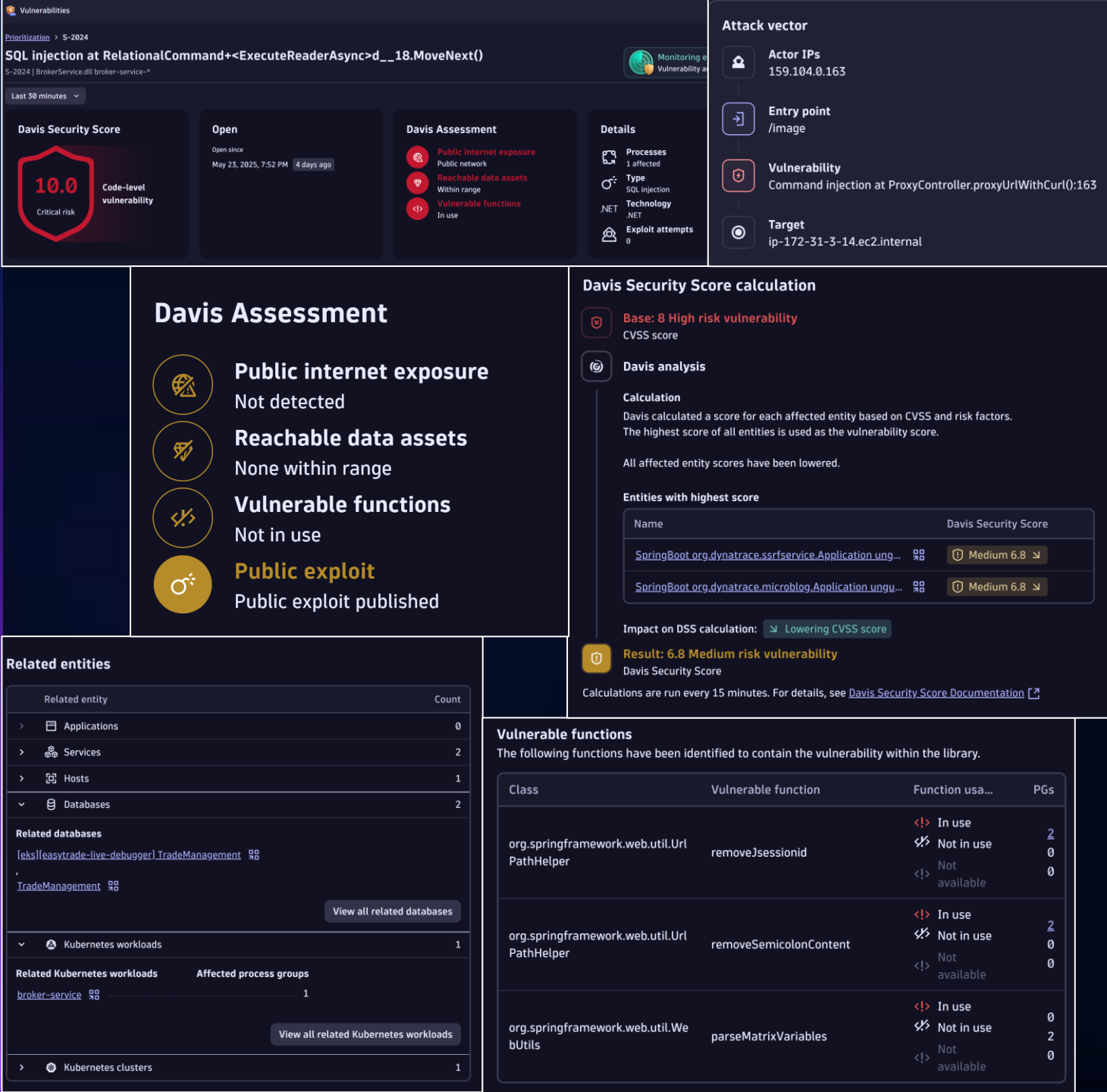
1 of 8

What: Runtime Vulnerabilities & Attacks

Who: All

How:

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

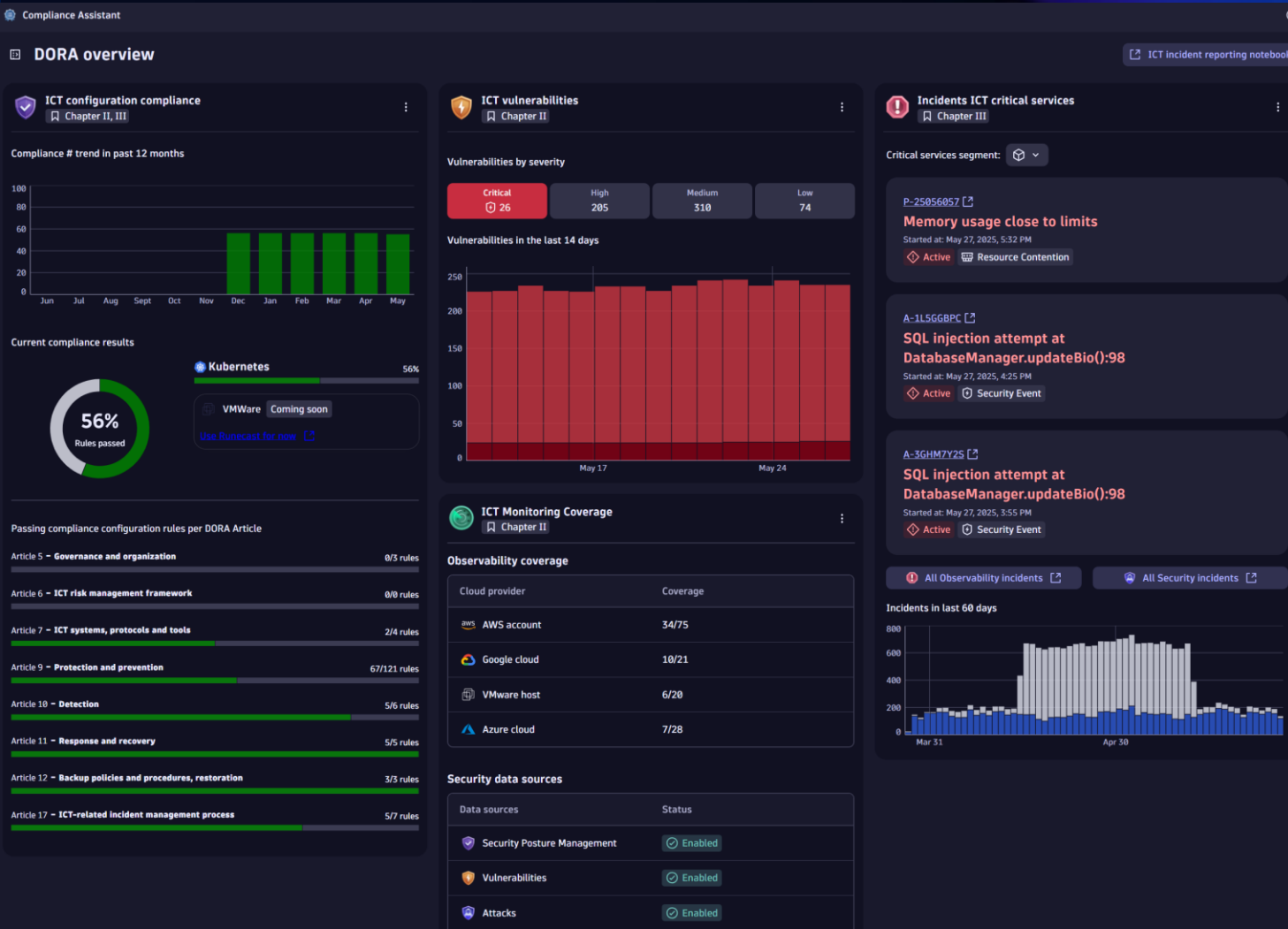


What: Operational Resilience & Compliance

Who: All

How:

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



Business Observability

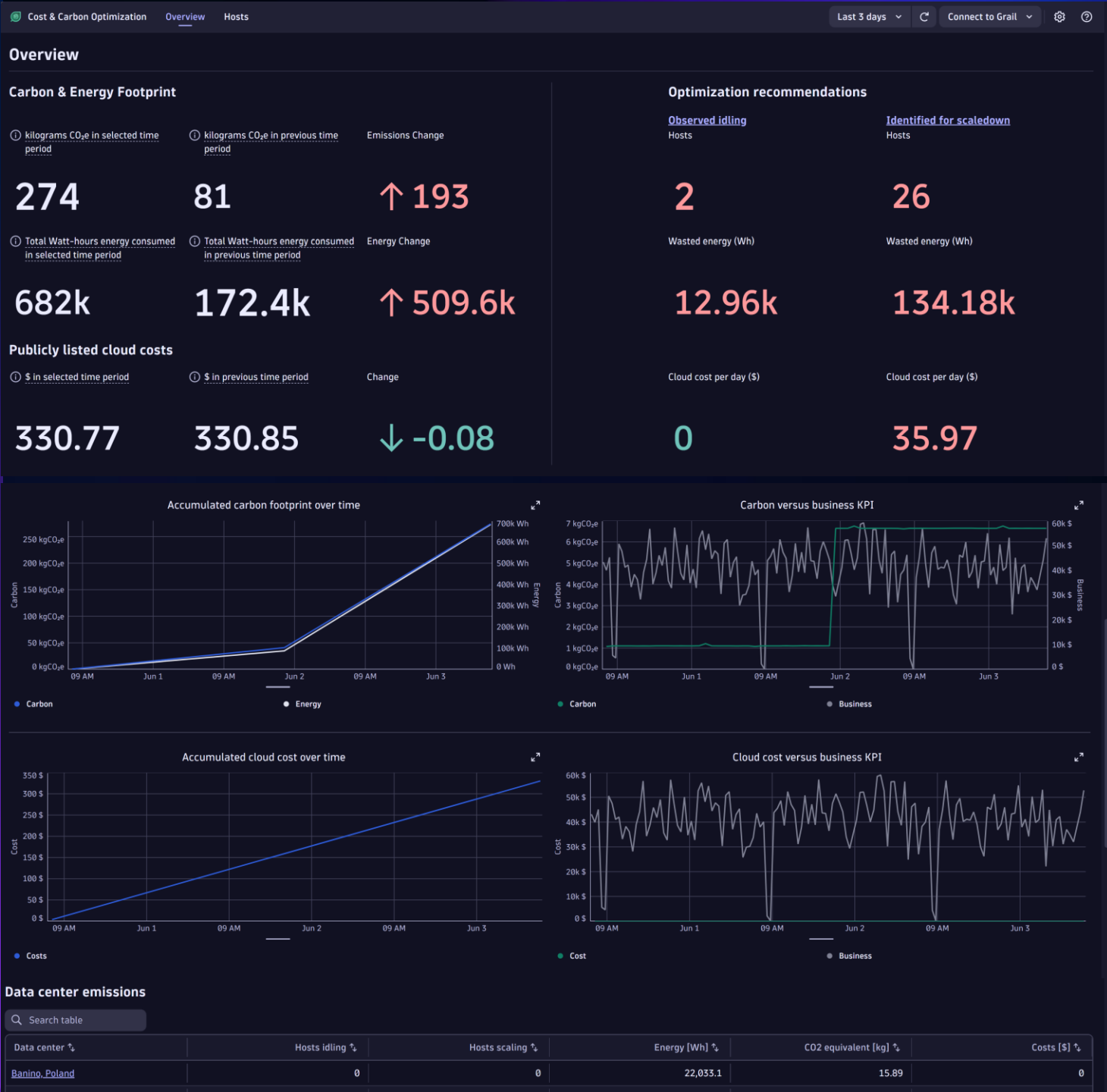


What: Carbon & Cost Optimisation

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.

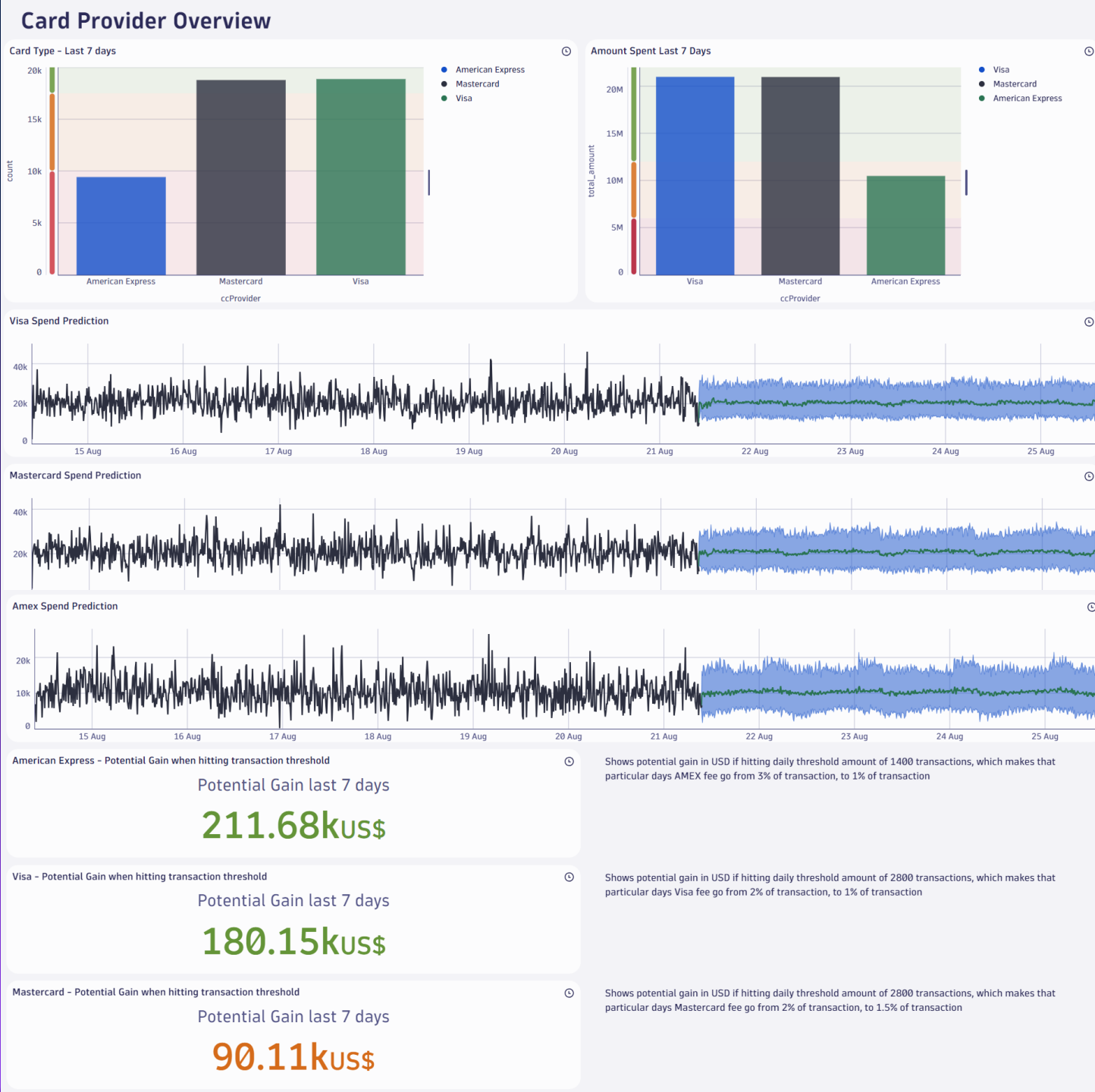


What: Card Provider Insights

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.



| Pro-active servicing powered by Dynatrace

WHY

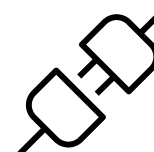
was this impactful to Vitality?



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

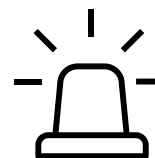
did they achieve this?



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

