

Honey, I shrunk the data center!

07.10.2025 SREcon, Dublin

allegro



Przemysław Lalak

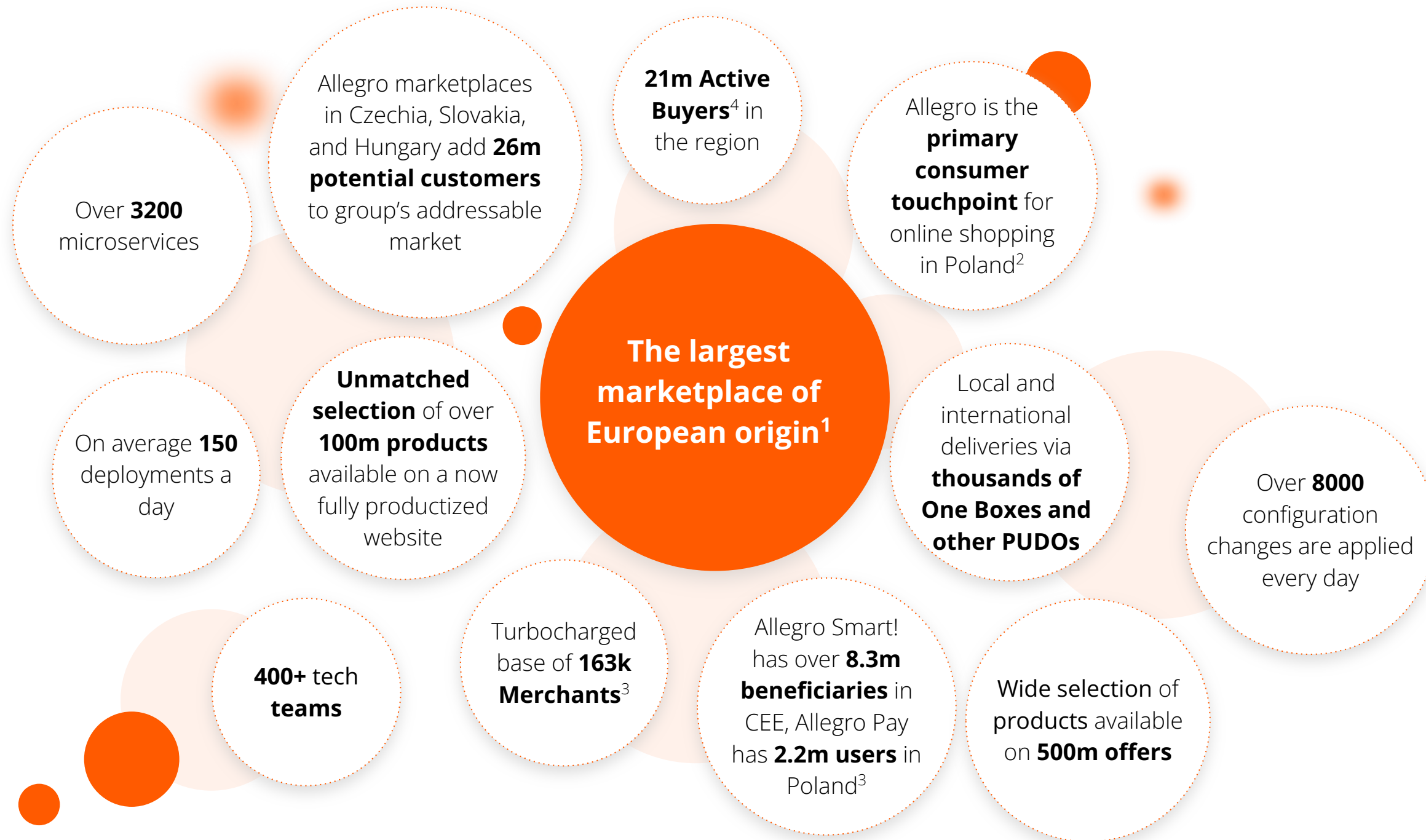
Engineering Manager, Cybersecurity & IT Governance

Our adventure today

- Designing the Shrinking Ray (The 'Why' and 'How')
- Surviving the Backyard (Facing our 'Scorpions')
- The Journey Home (Lessons from the Wild)

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allegro a platform of opportunities



1. Measured by traffic. Source: ChannelX Europe's Marketplaces 2024 [report](#)

2. Source: internal company report, Allegro & Minds & Roses, 2024

3. As of YE 2024

4. As of Q1 2025

Sources: Company information; SimilarWeb; Warsaw Bourse; Retail TAM sourced from Euromonitor, which excludes sales of motor vehicles, motorcycles and vehicle parts, fuel, foodservice, rental and hire, wholesale industries and C2C

allegro a platform of popular brands



Data center outages in the wild

X is slowly recovering after a major data centre outage

X is recovering from a site-wide outage linked to an Oregon data centre fire, but some login features are still experiencing performance issues.

By Emma Job | 24 May 2025



Microsoft admits 'power issue' downed Azure services in West Europe

Work ongoing to manually recover some storage nodes

Paul Kunert

Mon 23 Oct 2023 // 12:15 UTC

Overheating datacenter stopped 2.5 million bank transactions

Running infrastructure in the tropics has its challenges – but so do failed disaster recovery plans

Tue 7 Nov 2023 // 12:28 UTC

Post mortem on the Cloudflare Control Plane and Analytics Outage

2023-11-04

Facebook's Catastrophic Blackout Could Cost \$90 Million in Lost Revenue

LAST UPDATED OCTOBER 3, 2020 6:51 PM
BY BEN BROWN

Google Cloud's so-called uninterruptible power supplies caused a six-hour interruption

When the power went out, they didn't switch on

Simon Sharwood

Tue 15 Apr 2025 // 06:33 UTC

Data center outages in the wild

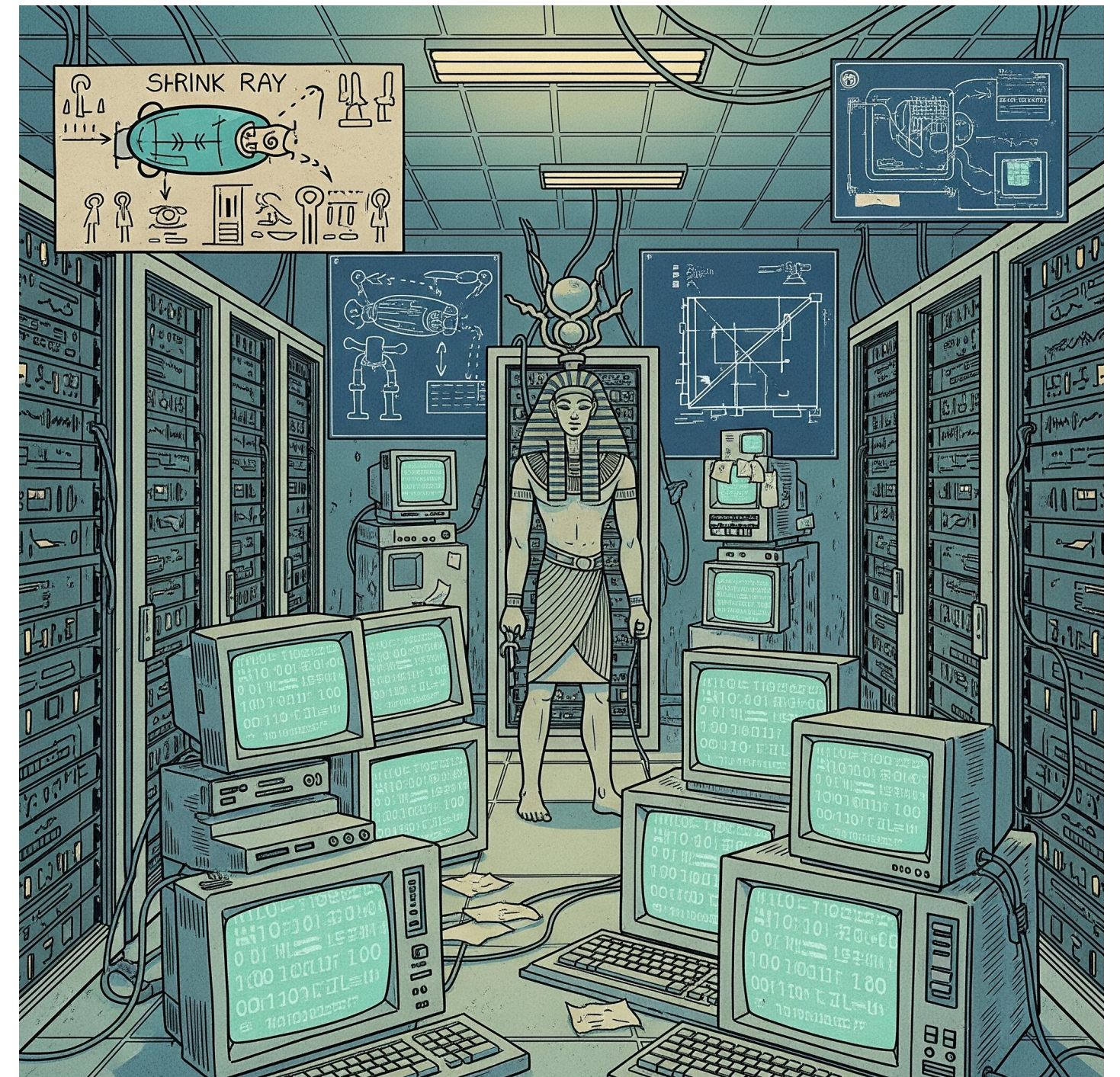


Project Osiris

Project **Osiris** is a series of chaos experiments and tests conducted to assess the resilience and readiness of the platform to handle the loss of one data center.

The **main goal** is to reach a state where the **loss of a single DC does not impact the platform's Service Level Agreement**.

The **ultimate aim** is to be able to **simulate a complete power outage** in a DC **without affecting the stability of the service**.



The definition

“Chaos Engineering is the discipline of experimenting on a system in order to build confidence in the system’s capability to withstand turbulent conditions in production.”

<https://principlesofchaos.org/>

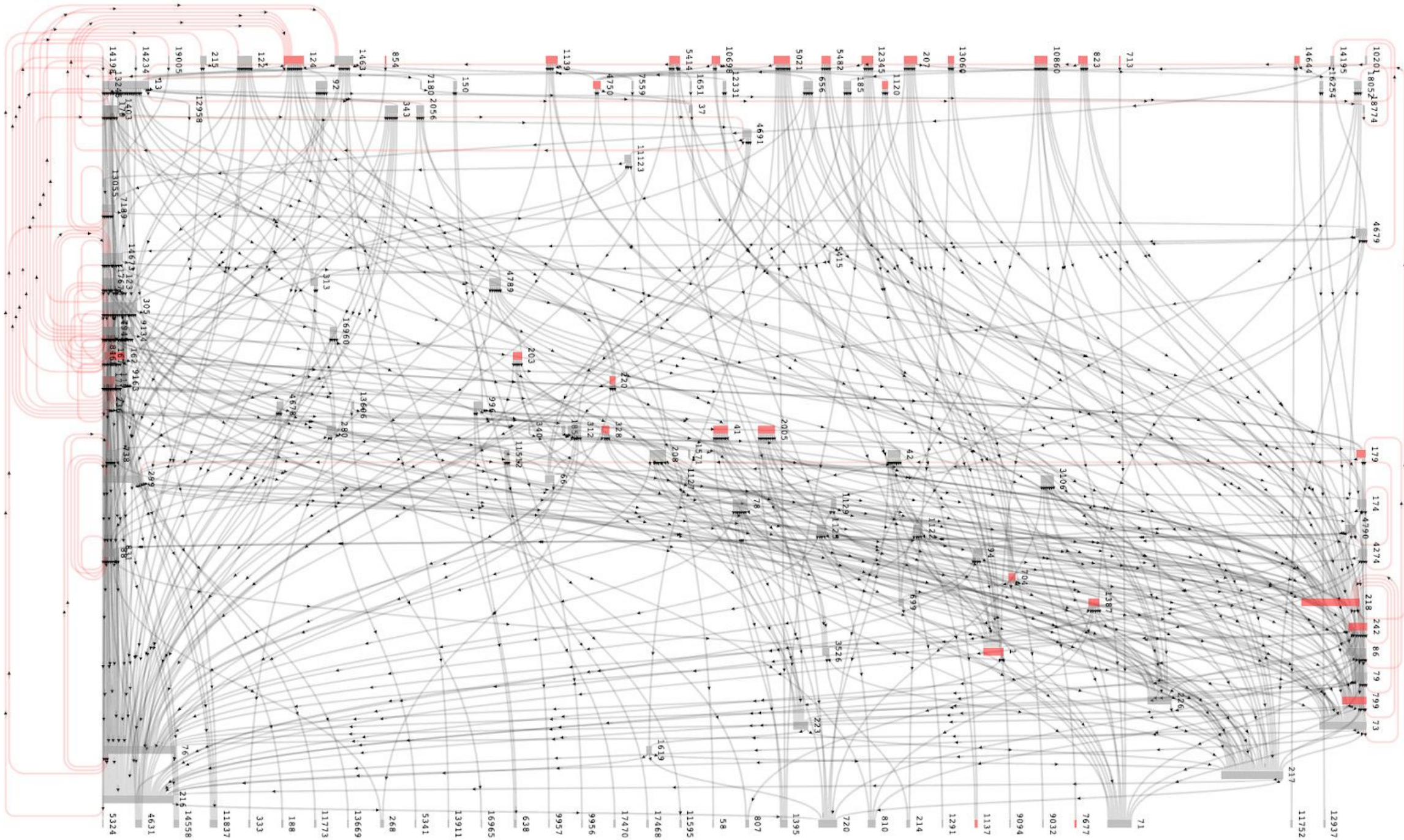
Calibrating the ray



Checklist

- ❑ Send the communication
- ❑ Agree on the scope of the experiment
- ❑ Finalize exclusions list
- ❑ Build screenplay - workshop
- ❑ Prepare attendees list
- ❑ Review and update the screenplay
- ❑ Provide a fallback plan
- ❑ Verify statuses of problems raised from previous Osiris
- ❑ Export offline list of people's emails and phones
- ❑ Create a dedicated Slack channel
- ❑ Create calendar invitation with conferencing link
- ❑ Book conference room
- ❑ Check-in meeting
- ❑ Confirm attendee's presence
- ❑ Dedicated slack channel with a CX representative
- ❑ Prepare communication for public channel upfront
- ❑ Provide the final host list
- ❑ Share the experiment summary with stakeholders

Ruling out dependencies



Find the right time slot

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
29	30	31	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	1
















● Blockade
 ● Change record
 ● Marketing campaign

Osiris!






Screenplay

DURATION	START TIME	END TIME	TASK	OWNER					
0:05:00	12:15:00 AM	12:20:00 AM	Confirming platform stability (according to the status/metrics)						
		12:00:00 AM							
DURATION	START TIME	END TIME	PREDECESSORS	READY TO GO?	STATUS	REMARKS	ACTUAL START TIME	ACTUAL END TIME	Phase
0:05:00	12:15:00 AM	12:20:00 AM			Finished				Preperations
0:05:00	12:00:00 AM	12:05:00 AM	-						
0:00:00	12:20:00 AM	12:20:00 AM	-						
0:10:00	12:20:00 AM	12:30:00 AM							
					Finished				Shutdown
					Finished				Shutdown
					Finished		12:43:00 AM		Shutdown
					Finished		12:43:00 AM		Shutdown
					Finished		12:45:00 AM		Shutdown
					Finished	execute step few minutes after	1:00:00 AM		Shutdown
					Finished		1:00:00 AM	1:10:00 AM	Shutdown
					Finished				Shutdown
					Finished				Shutdown
					Finished		1:45:00 AM	1:52:00 AM	
					Finished		1:30:00 AM		Shutdown
					Finished			1:54:00 AM	
					Finished				Shutdown
					Finished				Shutdown
					Finished		2:10:00 AM	2:16:00 AM	Starting production

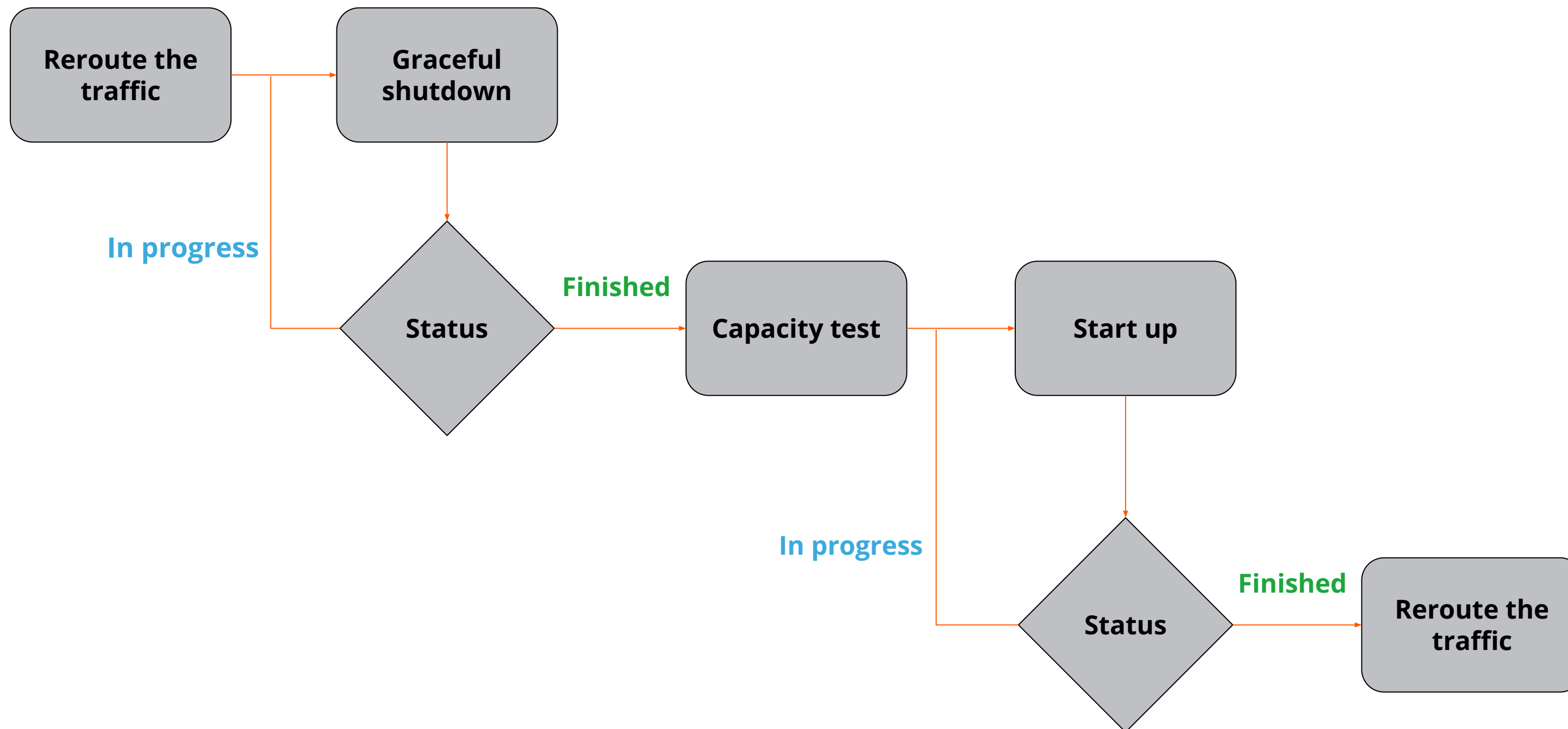
Monitoring global status

Allegro	
Home page	
User logons	
Search	
Sale	
ShowItem	
SMART!	
Purchase	
Payments	
PostPurchase	
Logistic processes	
Ads	
Customer management	
Seller management	
Communication	

What does this all mean?

-  No outages were detected
-  An outage, incident or instability was recently closed
-  Minor instability with low impact has been detected
-  Major outage with significant impact has been detected
-  Critical outage with very high impact has been detected

We're shrinking the data center!

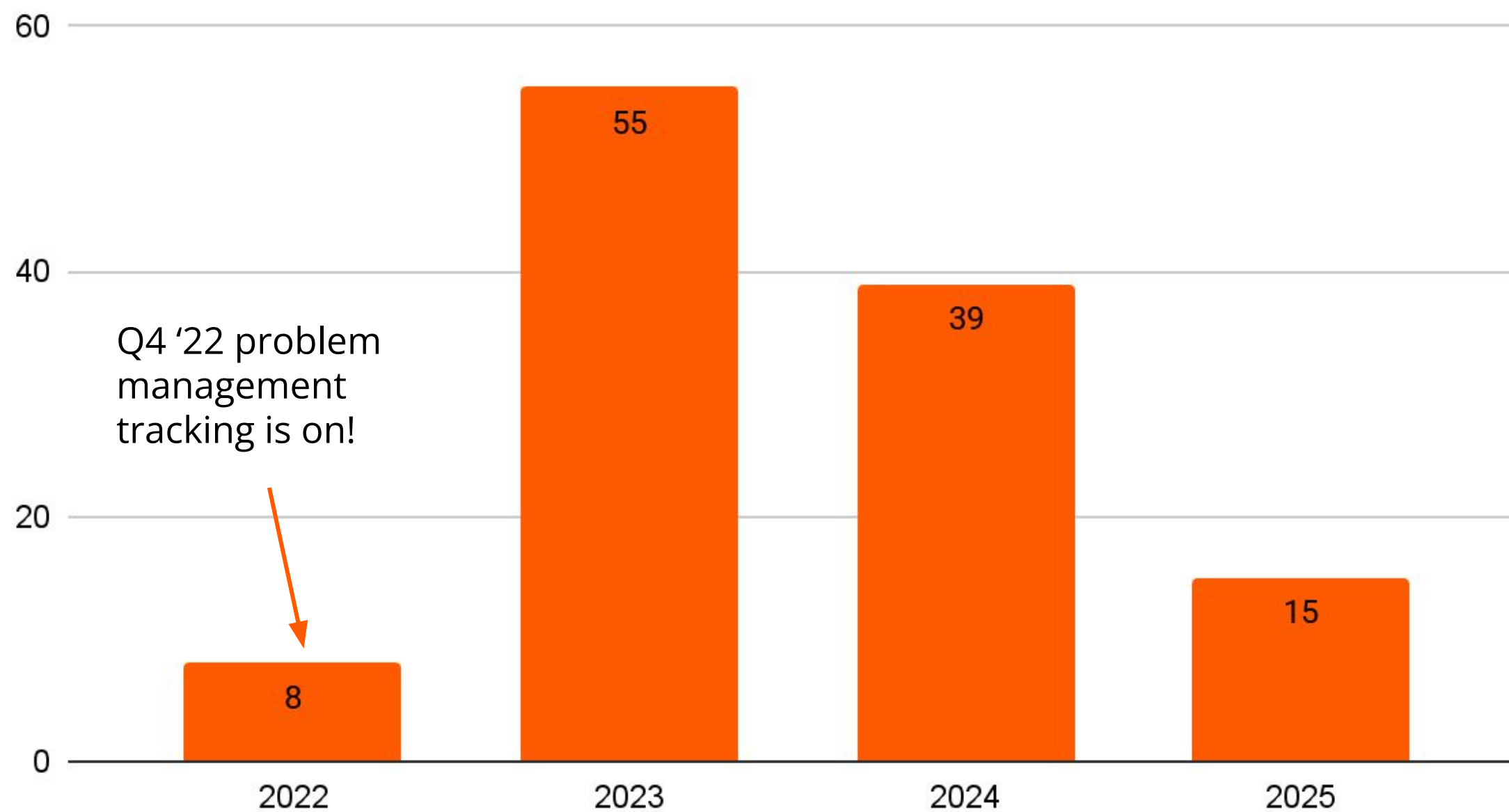


Scorpions attack

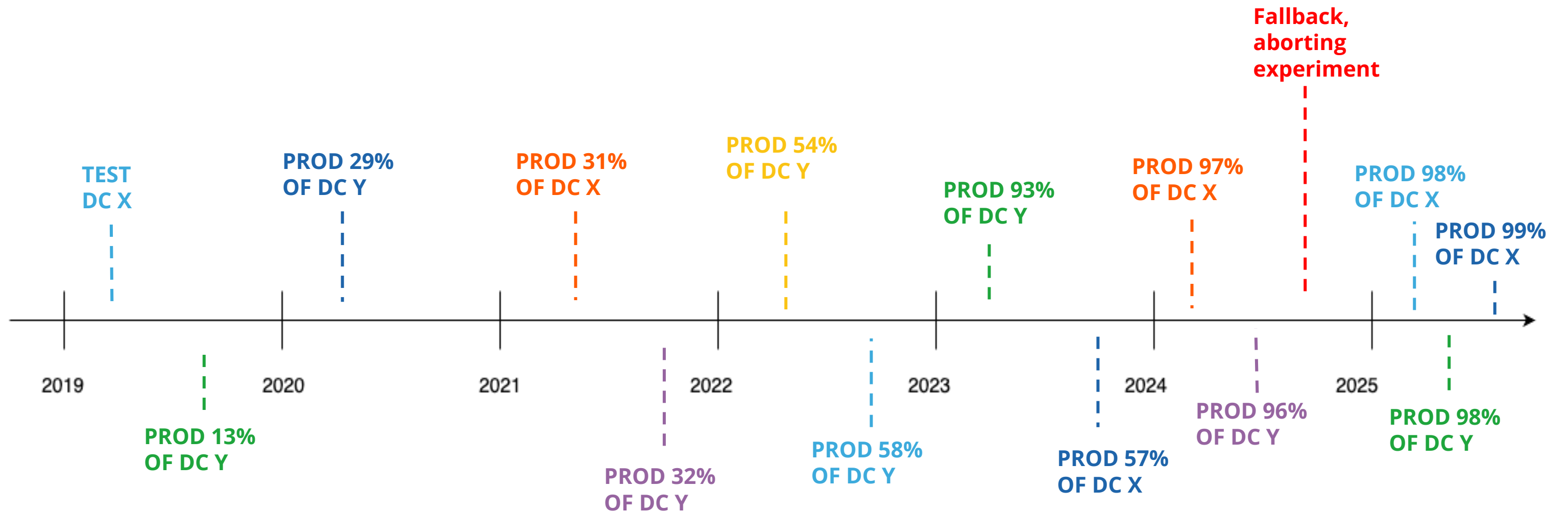


Outcomes

Actionable findings after Osiris

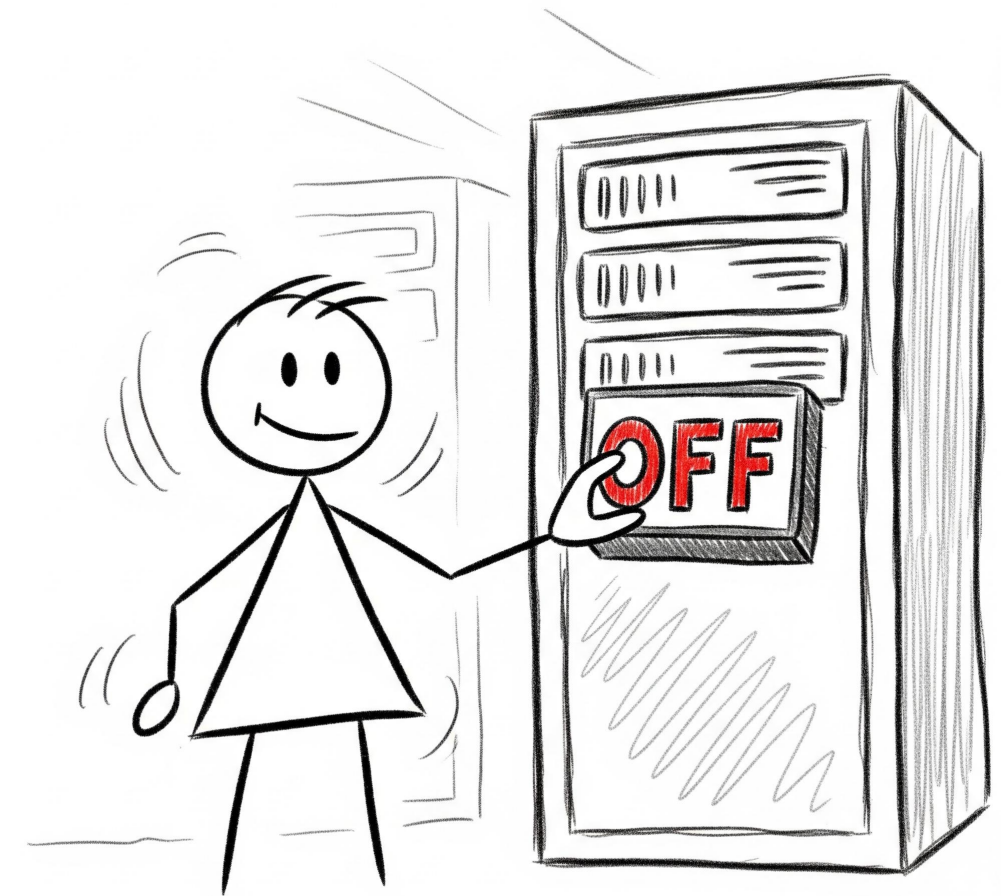


Project scope over the years

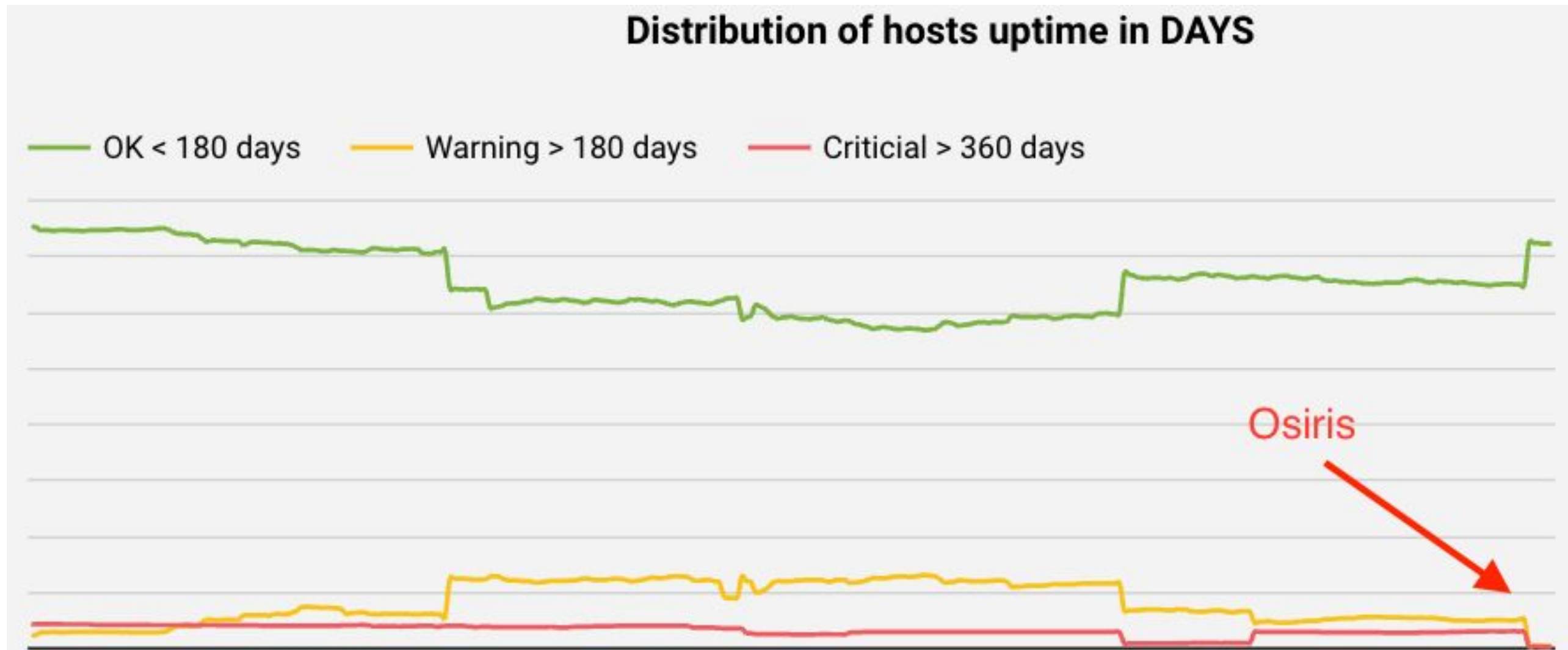


First attempt towards power-off

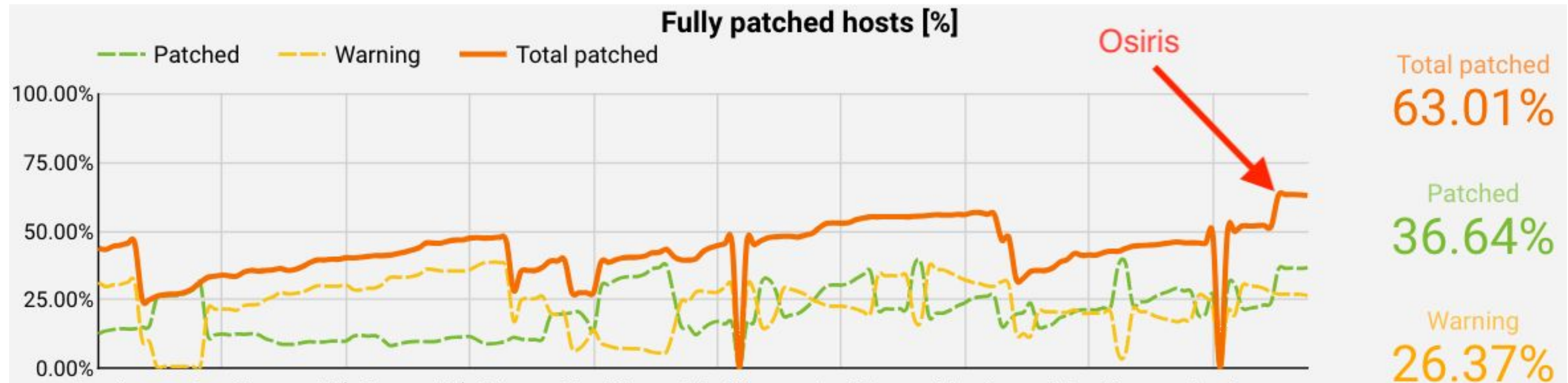
- We powered off 3 racks for the first time
- Success! Servers came back fine!
- Allowed us to estimate time needed for a full DC power-off



Outcomes



Outcomes



Outcomes: mini Osiris experiments

- **Scenario 1:** spike of blocked requests
→ test monitoring & on-call reaction
- **Scenario 2:** cut all DC ↔ Datadome traffic
→ simulate full vendor outage
- Simple but powerful test
→ **confirmed resilience** in case of vendor failure



Experiment summary

The wins

- Battle-Hardened in Production
- Deep Platform Knowledge
- Incident Response on Easy Mode
- Stronger Teams, Better Culture
- Measurable Security & Governance Wins

The wounds

- There Will Be Blood (in Production)
- Customer Impact & Tough Conversations
- It Can Be Messy and Unpredictable
- Resource Intensive

