

# Why observability and AI will help your Cloud adoption?

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PRESENTER

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# Industry Trends

## The public sector is Experiencing Pressure from Many Directions

### Public Sector

**Green IT.** All government entities are trying to lead by example on the topic of Green IT. Especially European Commission which should be an example for the all continent.

**Regulatory Compliance** pressure is increasing, particularly around safety and ecological impact, with cybersecurity adding yet another demand on risk management.

#### Cloud-Based Legacy Modernization

Leading governments are under pressure to break down legacy, siloed systems and data stores to modernize IT infrastructure and applications to ensure more resilient government services. CIOs can use adaptive sourcing strategies to identify areas where “as-a-service” delivery models augment internal resources and address business priorities. Gartner predicts over 75% of governments will operate more than half of workloads using hyperscale cloud service providers by 2025

#### AI for Decision Intelligence

By 2024, Gartner predicts 60% of government AI and data analytics investments will directly impact real-time operational decisions and outcomes. AI for decision intelligence provides governments with rapid, accurate and early decision-making capabilities at scale. CIOs must prepare for widespread AI use by ensuring data is available at points of decision and by establishing effective governance principles.



Complexity

# Get the right data across datacenters and cloud



Continuous auto  
discovery  
No manual work

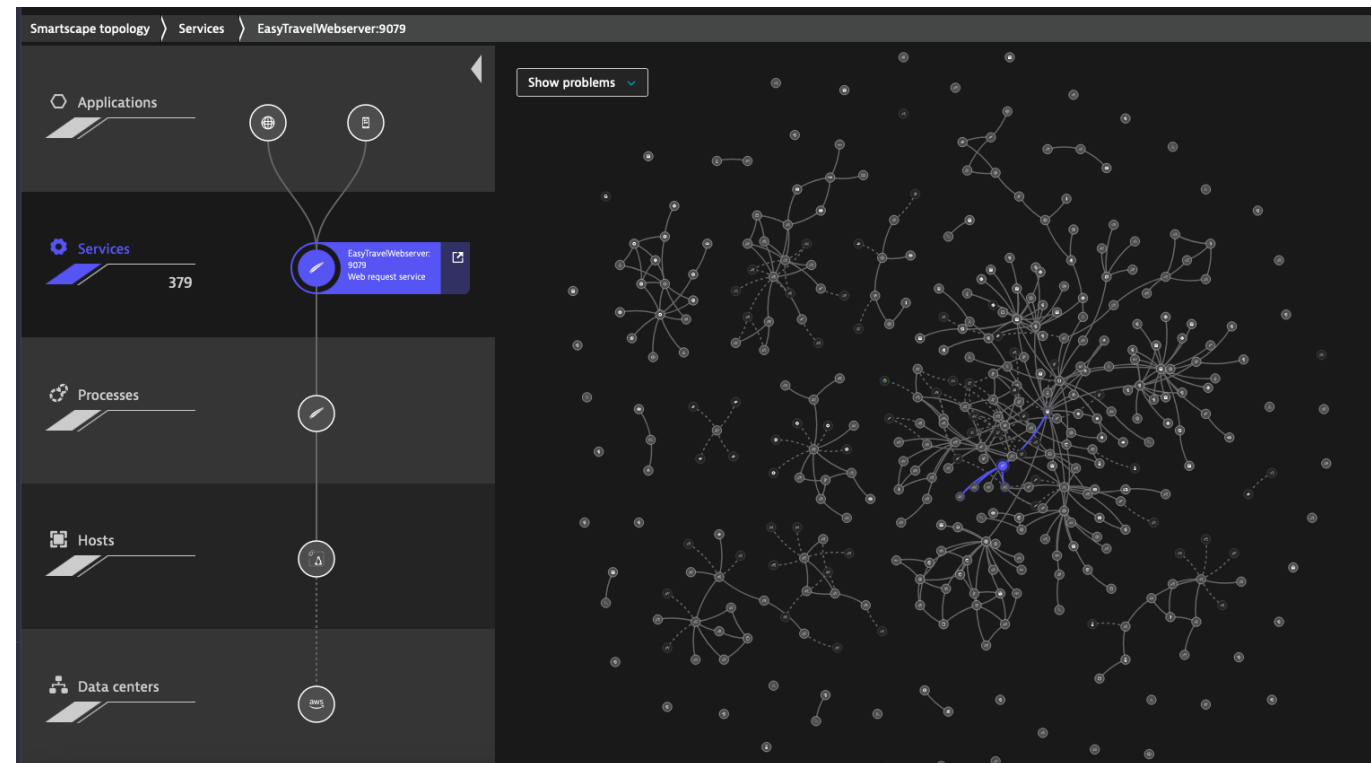


On prem DC's  
Kubernetes  
AWS, ...



Use as data source for  
CMDB

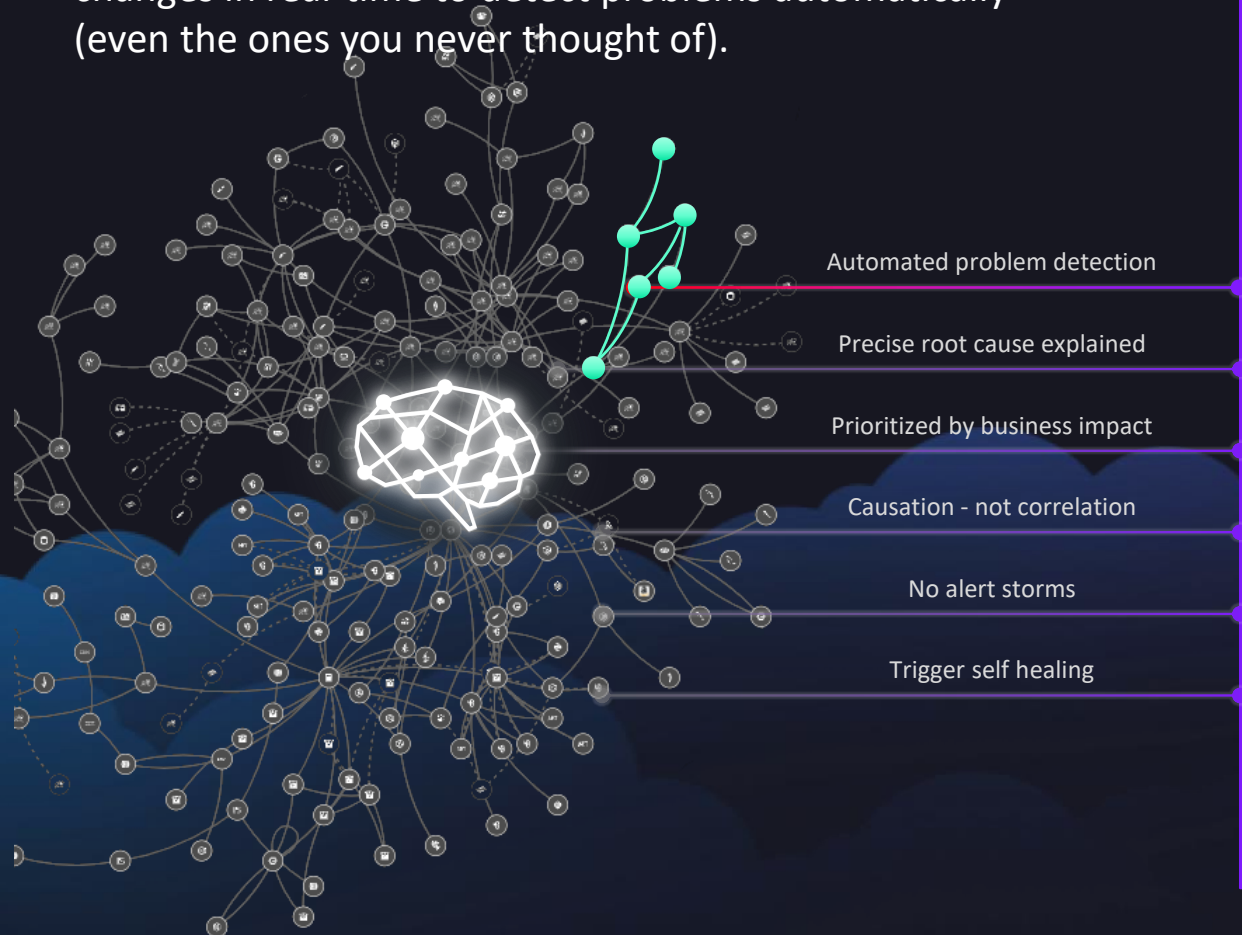
- Instant visibility across your whole enterprise
- Observability data stored in dependency model
- Single source of truth
- Used by AI called Davis



Running on prem and/or public cloud

# Go beyond dashboards and get proactive answers

Dynatrace continuously observes, learns and auto-adapts to changes in real-time to detect problems automatically (even the ones you never thought of).



Problems Problem 694

www.easytravel.com: User action duration degradation  
Problem 694 detected at 02:03 - 02:29 (was open for 26 minutes). This problem affects real users.

Affected applications 1 Affected services 10 Affected infrastructure 2

DAVIS™ analyzed 2,942,317,092 dependencies

**Business impact analysis**  
An analysis of all affected service calls and impacted real users during the first 36 minutes of the problem shows the following potential impact.

276 Impacted users (show first 100) 4.33mil Affected service calls

**Root cause**  
Based on time correlation and analysis of all transactions that use these components, this issue has the following root cause

CheckDestination Custom service

Deployment Deployment change Today, 01:57 - 02:03

2 Response time degradations Service CheckDestination slow down Today, 01:58 - 02:18

Events on: Service CheckDestination

Analyze code level, database calls, and outgoing requests. Analyze response time degradation

**Metric anomalies detected**  
Review the metrics which show abnormal or outlying behavior.

**1 impacted application**  
73.6 User actions per minute impacted

www.easytravel.com Web application

User action duration degradation  
The current response time (4.49 s) exceeds the auto-detected baseline (118 s) by 279 %

Affected user actions	User action		
73.6 /min	2 User actions		
Browser	Geolocation	OS	
All	All	All	

**Comments**

Add comment

No comments posted

**Visual resolution path**  
Click to see how we figured this out.

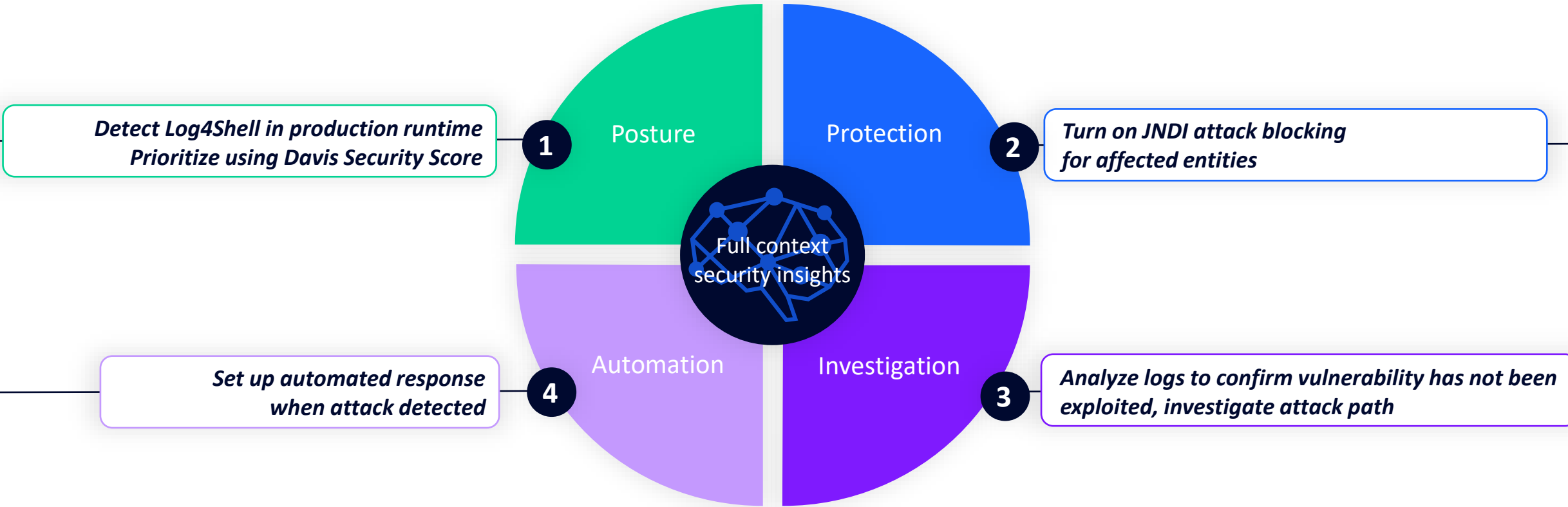
# From low hanging fruit to ...

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- Free up time with AI driven incident resolution process
  - Less teams involved in incident resolution process
  - Less time spend on finding root cause of an issue
  
- Solve reoccurring problems
  - Less incidents in production
  - Free up even more time
  
- Optimize environment
  - Tool consolidation: APM, infra monitoring, log analytics, ...
  
- Auto remediation with Dynatrace workflows
  - Automating resolution of problems (ex: Ansible)



# Extending observability to security



# Log4Shell Vulnerability Timeline with Dynatrace AppSec

All times in UTC



Vulnerability listed on GitHub



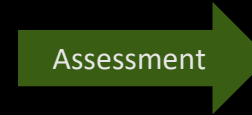
Vulnerability listed on NVD



Vulnerability listed on Snyk



AppSec vulnerability catalog updated



First vulnerabilities detected in customer environments with Davis Security Score

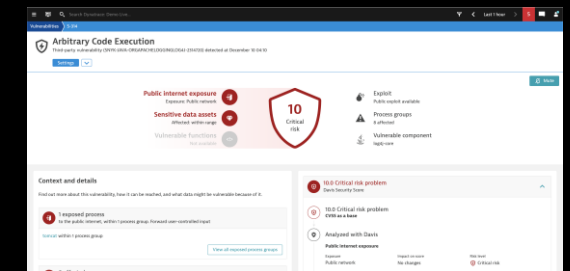
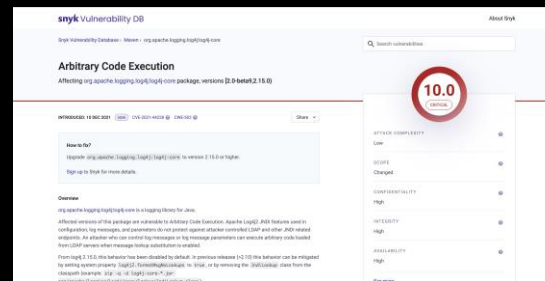
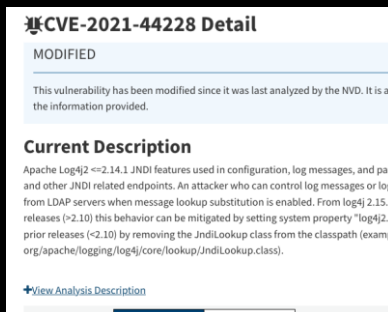
Dec 10, 12:40am

Dec 10, 10:15am

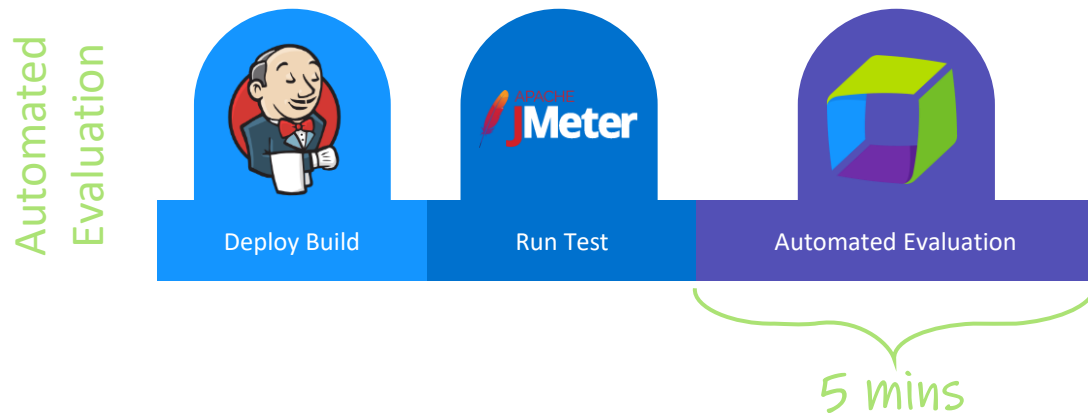
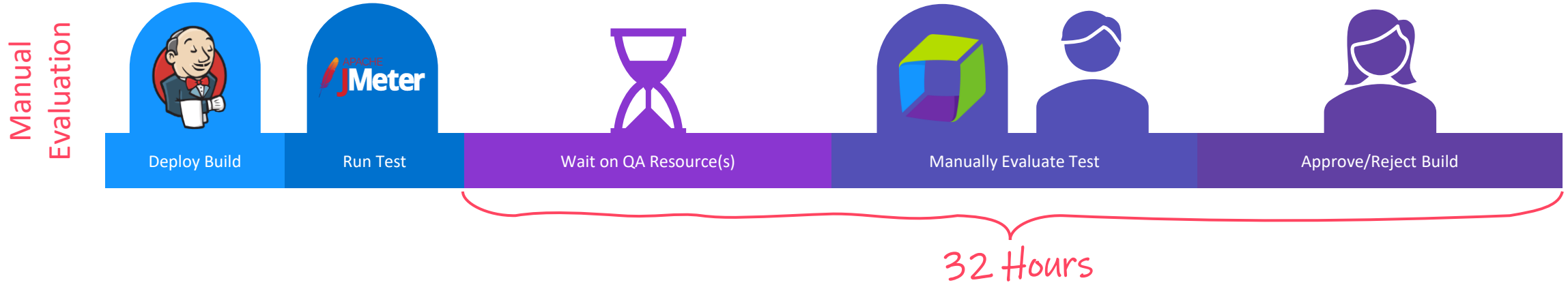
Dec 10, 10:45am

Dec 10, 10:50am

Dec 10, 11:05am



# Shift Left faster, better and more secure releases



**400x** reduction in performance evaluation time

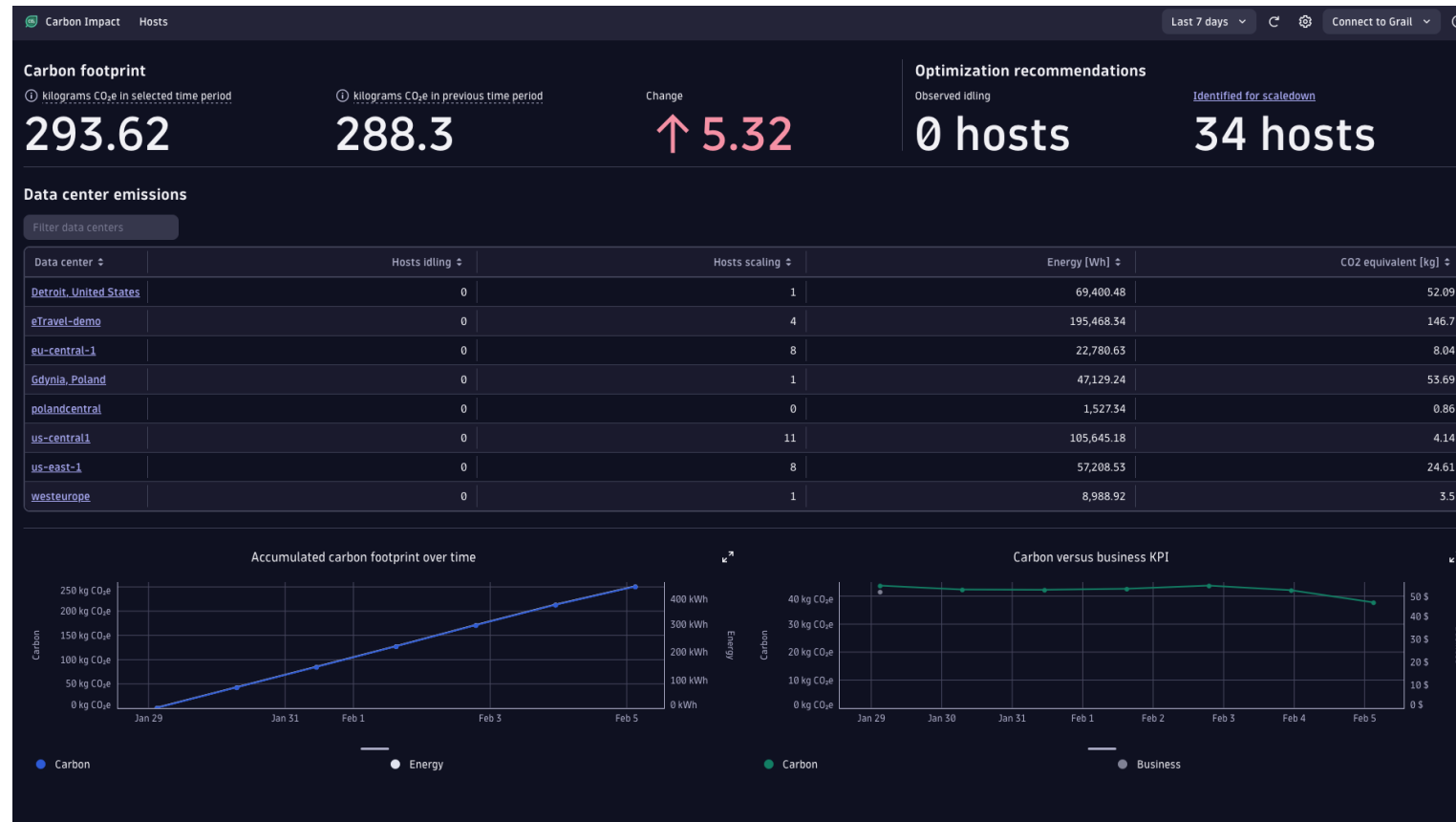
*Dynatrace Release Validation enables us to build a “You Build It, You Own It” Organization*





# Manage cloud cost and mitigate carbon footprint

- Manage increasing cloud costs by right scaling
- Support ESG initiatives
- Optimize carbon footprint
- Underutilized hosts
- Green coding initiatives
- Smart orchestration



You can't manage what you can't measure

**Davis® AI**

**Deterministic Answers & Reliable Automation**  
Problems, Risks, AIsecOps, Root-Cause

Inquiry ←

Auto-Prompt

**Productivity & Recommendations**  
Ideation, research and creation

**Predictive AI**

**Causal AI**

**Davis® CoPilot**  
**Generative AI**

- Forecasting
- Anomaly Prediction

- Topology Traversal
- Trace Traversal
- Causal Ranking
- Domain Context
- Anomaly Detection

- Machine Learning
- Statistical Model

- Smartscape in Context
- Semantic Dictionary

Context →

- Natural language data access
- Dashboard Generation
- Automation recommendations
- Onboarding, how-to guides
- Context Embedding
- PII & GDPR



User Input

- Topology
- Traces
- Metrics
- Logs
- Behaviour
- Code
- Metadata
- Network



Large Language Models



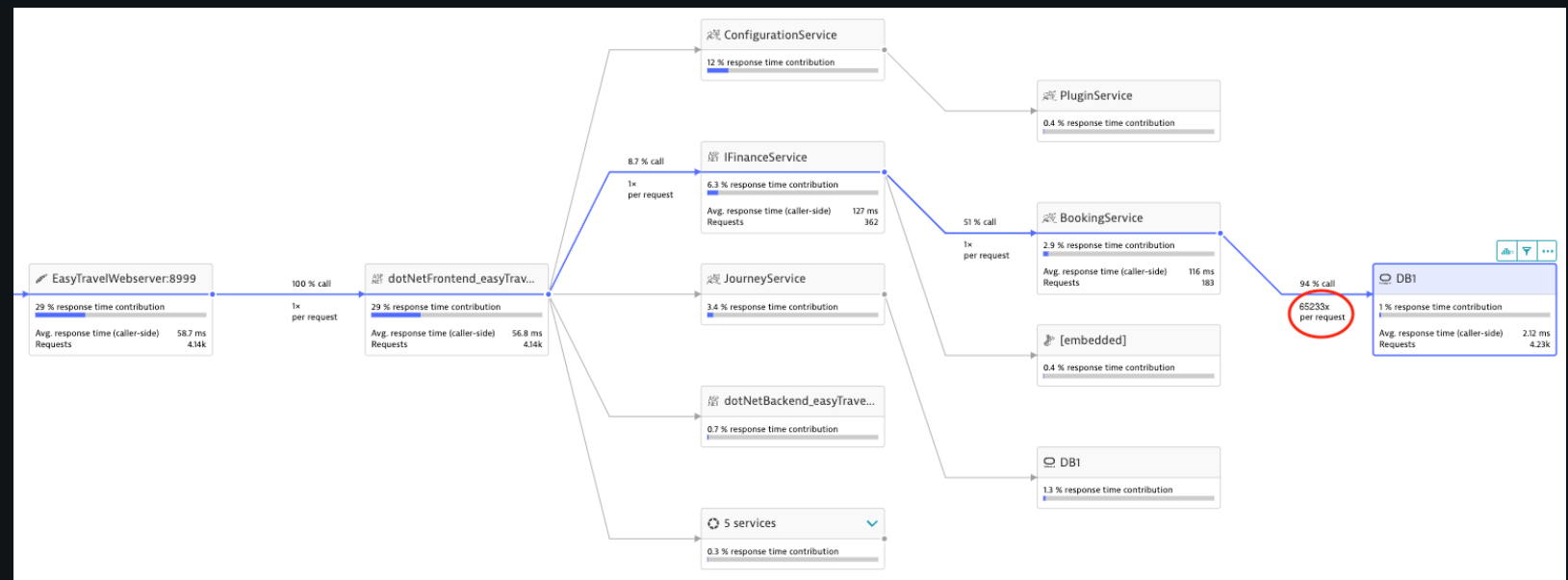
# European Institution: The Magic of Dynatrace

- Before Dynatrace:

- New Portal developed
- Simple Search in Portal → 10+ minutes to get results
- Months of investigation with external party without results
- Launch in production not possible

- The Dynatrace Magic:

- Agents deployed before lunch in 20 minutes (16 servers + proxy)
- Application traffic gathered during lunch time
- Problem and root cause identified after lunch
- One simple search was generating 65K requests to the database
- Code correction done in matter of days
- Application ready for production



# THE EUROPEAN COMMISSION

50+ directorates-general and  
services

## What do they get out of it?

### DIGIT

- Directorate-General for Digital Services
- Supports 32,000 employees and 2000+ applications
- 5 members of DIGIT manage Dynatrace



### DIGIT

- Easy onboarding
- Fast to innovate
- Multi-Cloud coverage
- Reducing MTTR
- Improve productivity

### END USERS

- Full observability
- Single pane of glass
- Independence
- Optimize performance

# Questions?

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