

Dynatrace – a Better Taste

Cláudio Porto

Regional Director





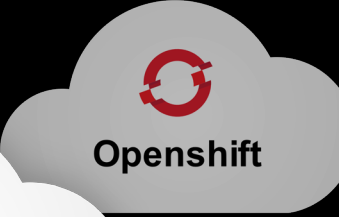
Transformation is accelerating

Scale is massive

Stakes are high

Complexity is exploding

Fewer resources & less time



The world is changing

Transformation is accelerating faster than ever. Dynamic, multi-cloud is now the norm.



Observability and OpenTelemetry

The Observability train

...observability is instrumenting systems and applications to **collect metrics and logs**. Its building apps with the idea that someone is going to watch them...

What's Observability? A **measure of how well we can understand a system from the work it does**. You instrument and monitor a system as part of a broader strategy to make it more observable.

If you are observable, I can understand you. Observability is achieved **when data is made available from within the system that you wish to monitor**... After you've made the system observable, and after you've collected the data using a monitoring tool, you must perform analysis ...

Observability is linked to monitoring. It's a technique in which every developer or product manager—really, anyone developing or producing a digital service from the earliest stages—of considering how their new service, function or code will be monitored. How will they expose data and variables to effectively monitor an application, feature, function or service?

Observability **requires comprehensive instrumentation of your applications and a monitoring system that can handle the vast, complex and high frequency data from cloud native architectures**. Observability not only provides a high-level overview of a system's health; it also provides deep insights into critical failures of your system and context to directly troubleshoot...

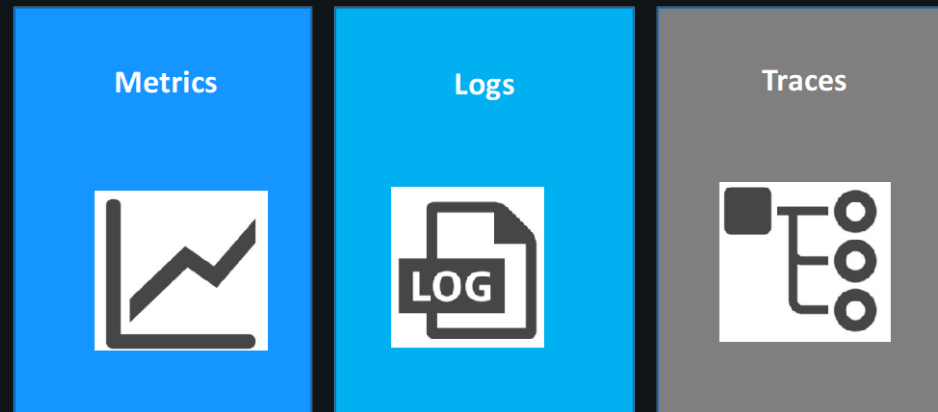
Observability is about Service Level Indicators (SLI), **an indicator of health that a service's consumers would care about**. Two goals of observability: gradually improve SLIs & rapidly restore SLIs. Two activities to achieve observability: detection-measure SLIs precisely & refinement-reduce search space for plausible explanations

Full-stack observability for modern applications: collect, search and analyze traces across fully distributed architectures. **Three pillars of observability in one platform, seamlessly unites metrics, traces & logs.**

Observability momentum is growing

Definition

- Exposing data and making a system observable through instrumentation or log collection



The wrong recipe for Observability

Recipe for Observability (the wrong way)

- Ingredients

- 100,000,000 cups of **metrics**
- 200,000 lbs of **logs**
- 2 teaspoons of **tracing**



3 pillars, no user experience data, no topology

- Stovetop Instructions

- Stuff all the metrics and logs into Elastic and Cassandra clusters (may require 100 servers or more)
- Slap Grafana on top and make a bunch of charts and dashboards

- Microwave instructions

- Use New Relic and/or DataDog



more data on glass, no answers

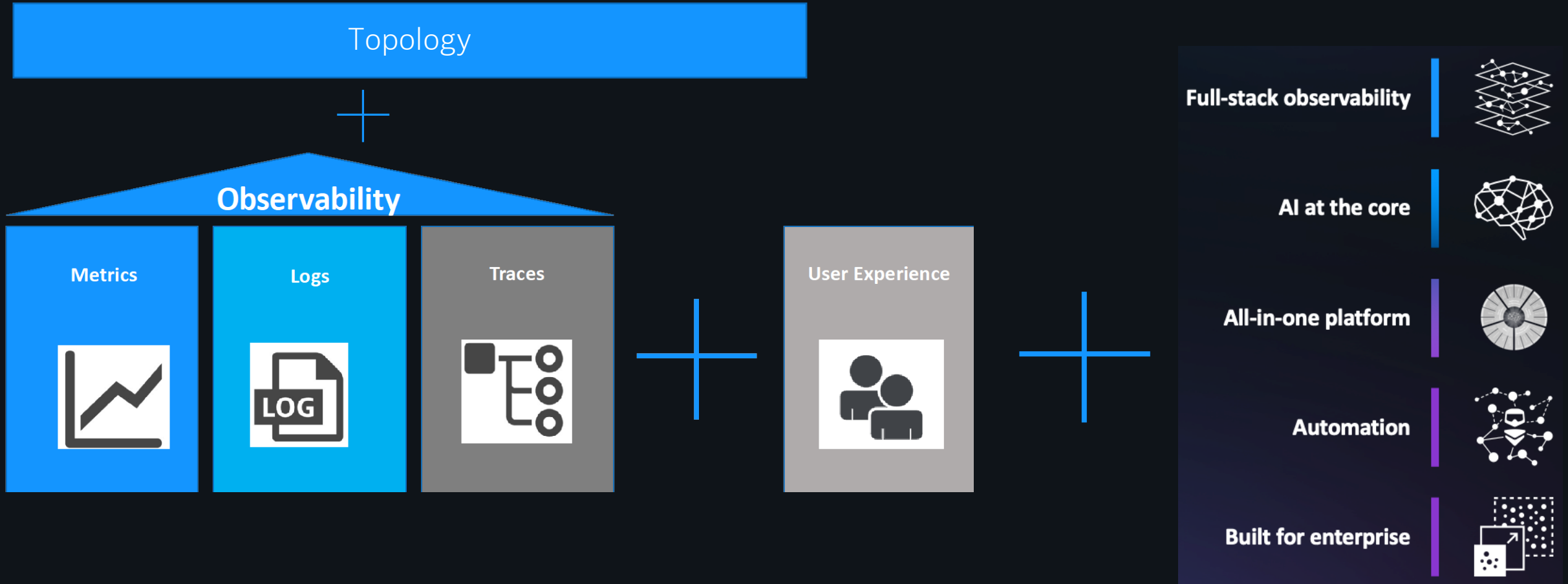
- Results

- Many years of engineering time spent getting it working
- More \$\$ than expected spent on "open source" and hardware
- Root cause analysis still too difficult
- The user experience is ignored
- War rooms continue



manual war rooms

Extending beyond Observability: adding user experience and topology pillars plus more



How it works

The Dynatrace software intelligence platform

Transform fast with unparalleled observability, automation, and intelligence in one platform.



AI-assistance

Go beyond dashboards and get proactive answers



Continuous automation

Automate and regain time



Intelligent observability

Monitor everything and auto-adapt to changes in real time



Cross team collaboration

Interconnect your teams and ecosystems



User experience and business analytics

See it from the perspective of your users and business

The Dynatrace software intelligence platform

AI-assistance Continuous automation Intelligent observability Cross team collaboration User experience and business analytics



SaaS and Managed

Traces Metrics Logs + Topology Behaviour Code Metadata Network + API OpenTelemetry keptn

500+ Supported technologies

Kubernetes OpenShift AWS Azure GCP Tanzu Enterprise Hybrid cloud

Automatic and intelligent observability

Broadest multicloud and technology support

The secret sauce

One platform, five groundbreaking ingredients
that sets Dynatrace apart.



1. OneAgent

Continuous, automatic discovery
& observability across your full
stack



2. PurePath

Distributed tracing and visibility
down to code-level.



3. Smartscape

Automatic, real-time topology
mapping with context.



4. Davis AI-Assistant

AIOps with explainable answers
that drive self-healing &
automation.

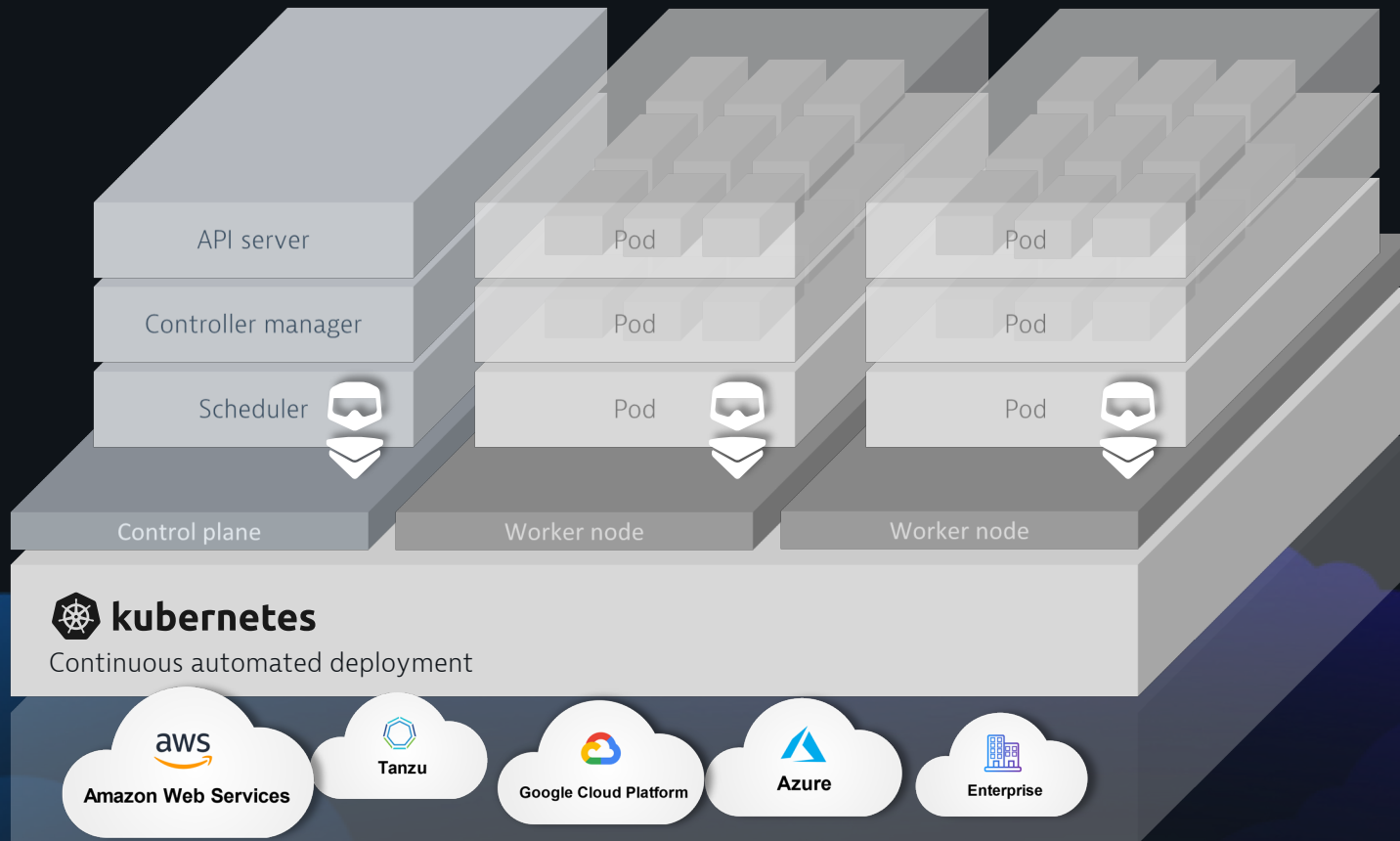


5. Hyperscale

Scalable across hundreds of
thousands of hosts, millions of
entities, & the largest multi-
clouds.

1. OneAgent

Industry's fastest mean time to observability with zero configuration.
OneAgent continuously auto-adapts to your ever-changing environment.
Say goodbye to changing code, container images, scripts or deployments.

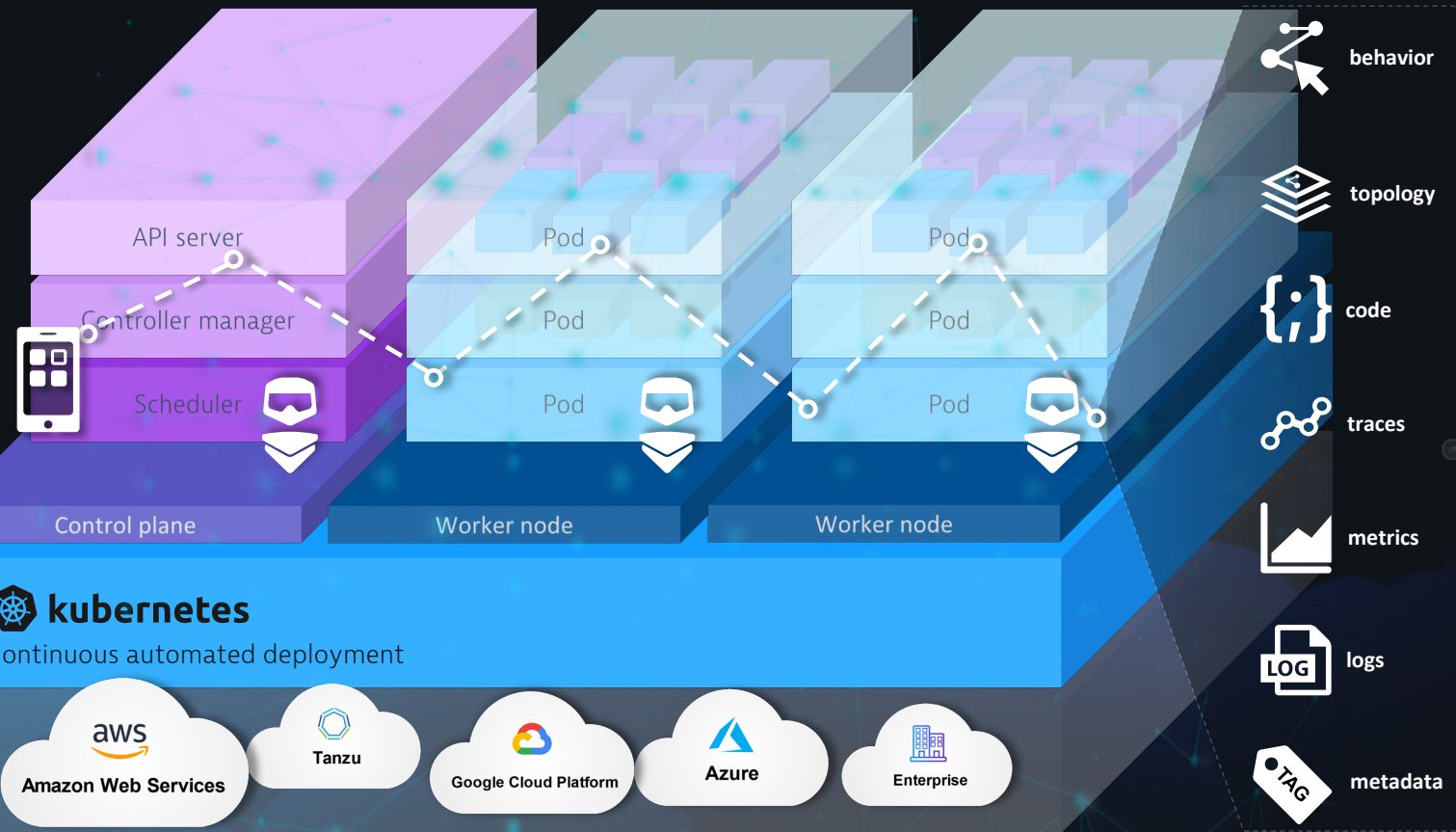


Mean Time to Observability Speeds

2018 Airline	21 most critical apps. 9,361 processes instrumented.	3 months
2019 Bank	29,341 processes instrumented. 2,116 servers. 3,178 services.	1.5 weeks
2020 Insurer	454,190 processes instrumented. 18,509 servers. 13,1073 services.	3 hours

2. PurePath

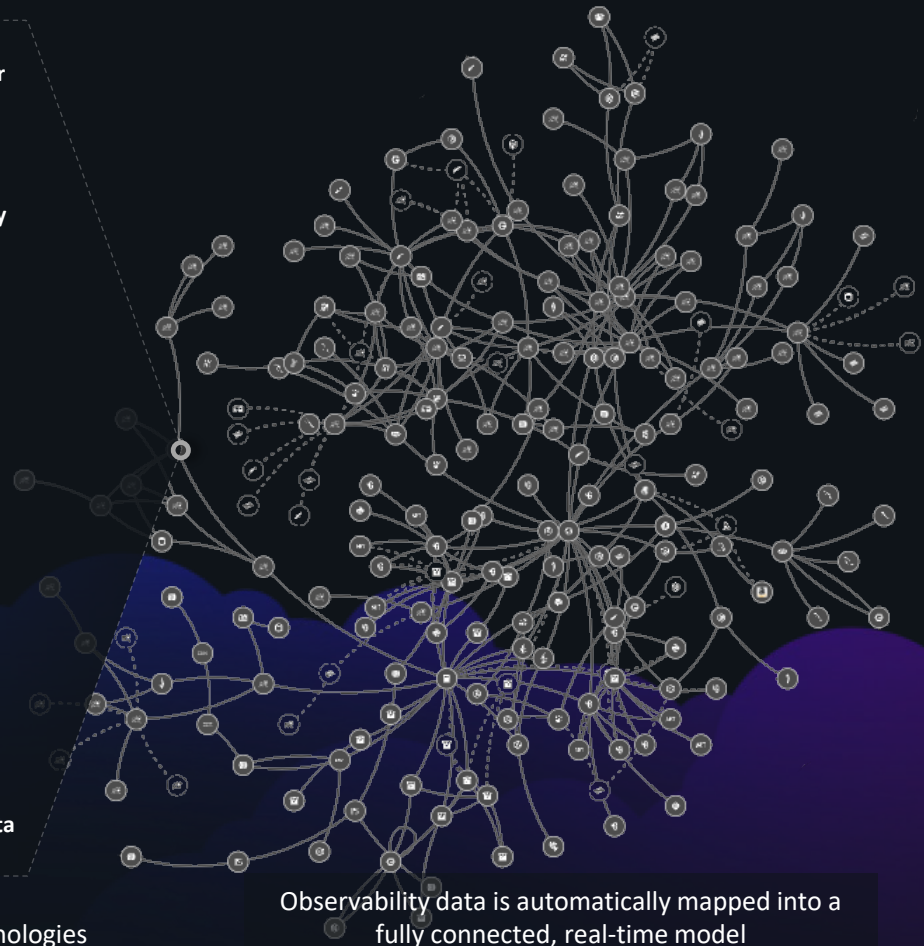
Automatic, end-to-end, deep code-level tracing at scale.



520+ supported technologies

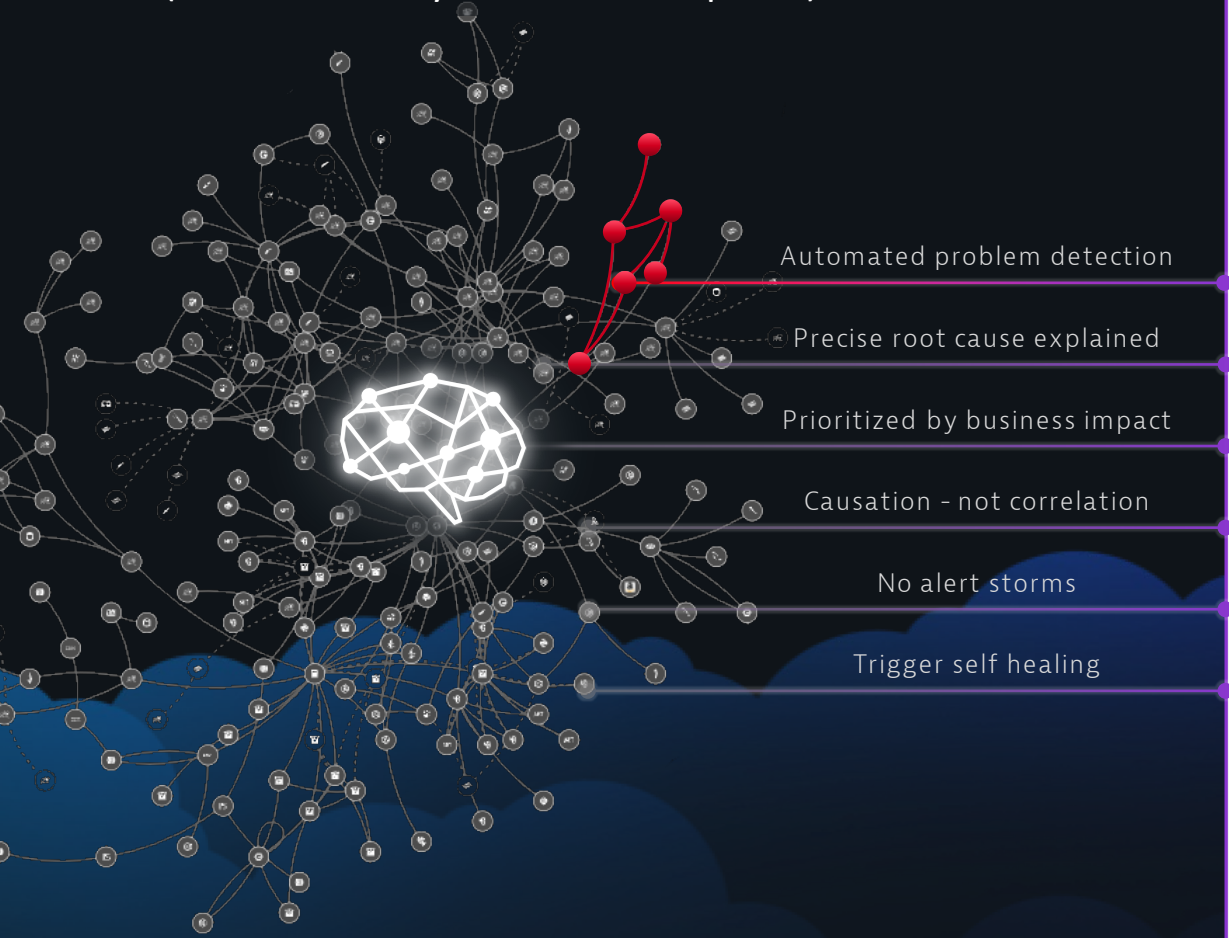
3. SmartScape

Auto-discovered topology and dependency mapping in real-time.



4. Davis AI-Assistant for AIOps

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



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

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 (Show more)

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 (1.18 s) by 279 %

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

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.

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

Comments
Add comment
No comments posted

Automate your problem remediation

Dynatrace automatically eliminates the noise and provides precise, reliable root cause which is essential for self-healing, autonomous operations.

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Root cause
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CheckDestination
Custom service

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

Source: ServiceNow
Version: 2.0.0.3274.20201111-080000
CI: https://ven01383.service-now.com/nav_to.do?uri=%2Fchange_request.do%3Fsys_id%3Df16e8d6dbf8414ceb29a67d...
Remediation: <https://ansibletower.internal.example.com/job?id=9>
Project: easyTravel
Approver: Alice McBright (alice.mcbright@easytravel.com)
Build Number: 1.223.23432
Git commit: e5a6baac7eb
Owner: Chuck Ryan (chuck.ryan@easytravel.com)

Events on: Service CheckDestination

Comments

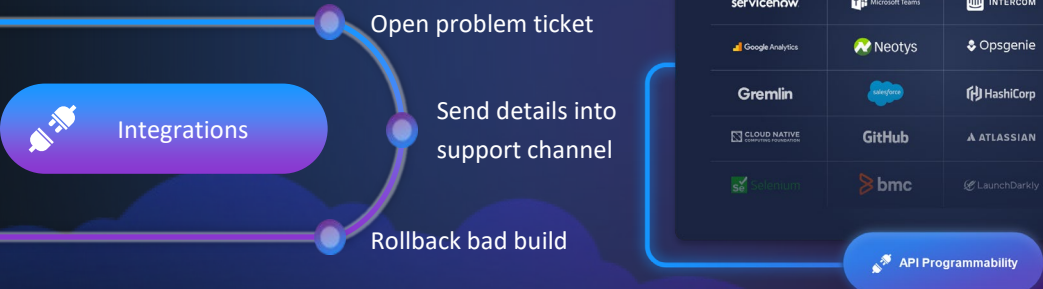
- 11/11/2020 15:08 - Problem information sent into easytravel support channel
- 11/11/2020 15:09 - Servicenow incident opened #875431
- 11/11/2020 15:10 - Ansible rollback initiated of easyTravel 1.223.23432
- 11/11/2020 15:20 - Service restored

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

Events on: Service CheckDestination

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

























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



Logos for various integration partners: matters, GitLab, Adobe Analytics, slack, servicenow, Microsoft Teams, INTERCOM, Jenkins, Google Analytics, Neotys, Opsgenie, ANSIBLE, Gremlin, AWS, HashiCorp, Grafana, CLOUD NATIVE, GitHub, ATlassian, CloudBees, selenium, bmc, LaunchDarkly, FLEXERA.

Easy, open, and automated integration

Weave Dynatrace's open API into your existing ecosystem to drive automation in everything from development and releases to cloud ops and business processes.

 matters	 GitLab	 Adobe Analytics	 slack
 servicenow	 Microsoft Teams	 INTERCOM	 Jenkins
 Google Analytics	 Neotys	 Opsgenie	 ANSIBLE
 Gremlin	 salesforce	 HashiCorp	 Gatling
 CLOUD NATIVE COMPUTING FOUNDATION	 GitHub	 ATlassian	 CloudBees.
 Selenium	 bmc	 LaunchDarkly	 FLEXERA <i>Inform IT. Transform IT.</i>

 API Programmability

5. Hyperscale

Dynatrace has best-in-class scalability and is used in the most demanding enterprise environments every day, but the hyperscale of our customer adoption and success is what we're most proud of.

Services and support to enable your teams to



“Dynatrace has given us back so much time – we’re now able to truly focus on innovation and doing cool things.”

Jay Cotton, Performance Engineer Lead



“I used to open up my email first thing in the morning, now I open up Dynatrace... along with 400 others at Dish daily.”

Eric Harris, Director of Enterprise Systems



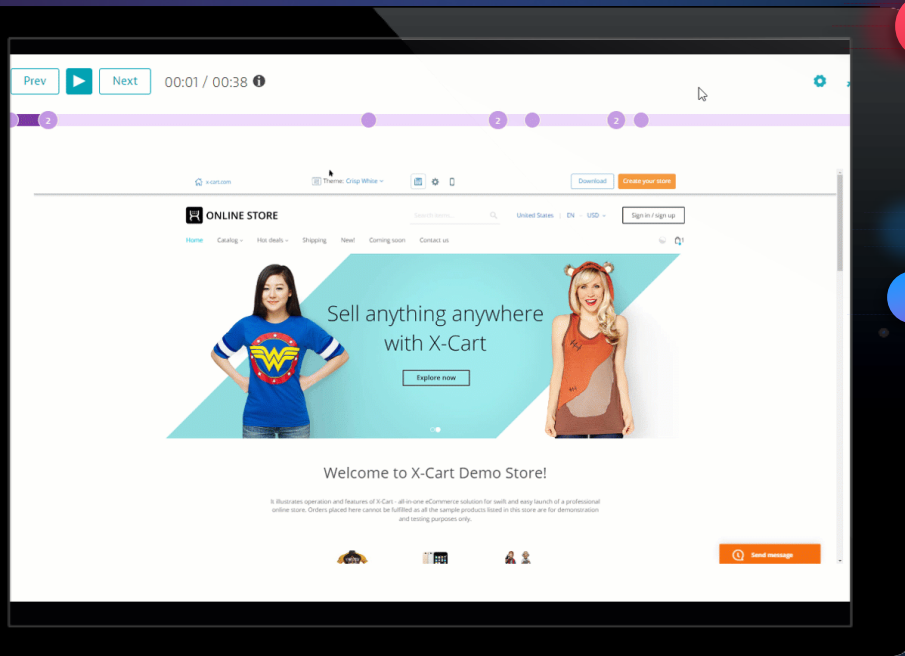
“We went from zero to 12,000 hosts in less than two months. Our roll out happened while I was having a BBQ over the weekend! Automation, trust and tools were key to this success.”

Reinhard Weber, Senior Product Manager



Digital business

Put your observability into context of your business. Gain real-time visibility into business KPIs, enable more efficient IT and business collaboration, and deliver better digital business outcomes across all your channels.



! Rage clicks detected

Adobeid: 5398762..

Timefromlastvisit: 11.2

viewname: page.autopay..

producttype: coffemug

Addressstype: residential

pagetype: PDP

cartvalue: \$14.50

loyaltystatus: Gold

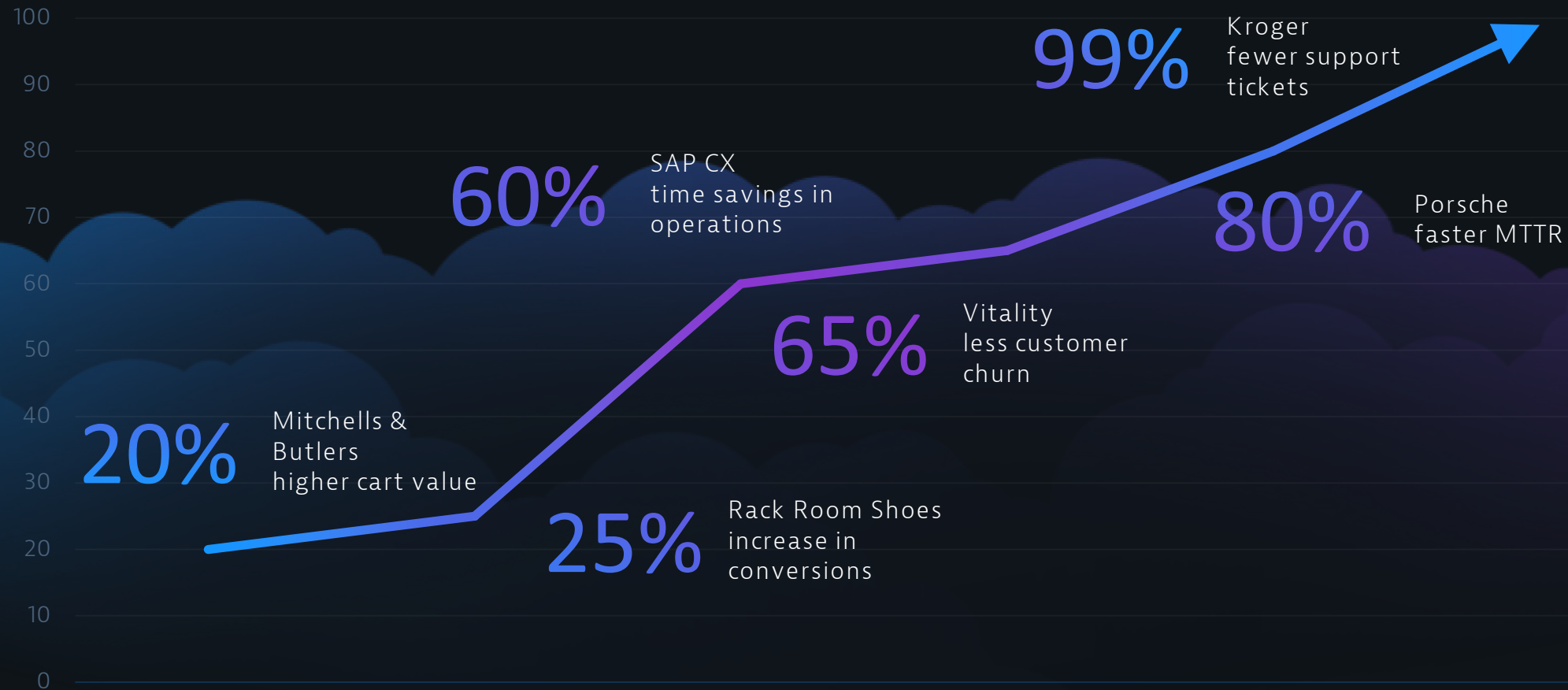
pagename: autopay.checkout

Successful conversion



Drive better business outcomes

Transform faster



The Dynatrace software intelligence platform

Transform fast with unparalleled observability, automation, and intelligence in one platform.



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Simply smarter clouds