AWS re:Invent

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COP223

Optimize applications through end user insights with Amazon CloudWatch RUM

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Agenda

1. Why digital experience is critical
2. Amazon CloudWatch Synthetics
3. New launch! Amazon CloudWatch RUM
4. Booking.com's digital experience journey
5. Deep dive and demo

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Do you have visibility into your application's digital experience?



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Bad customer experience affects business

70% of consumers say web page speed impacts their willingness to buy from an online retailer –
Unbounce report 2019

Amazon calculated that every 100ms delay cost Amazon 1% of sales. -
2006



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Why digital experience monitoring?

Ensure a consistently great customer experience

Observe Observe from the customers' perspective

- Spot intermittent issues
- See when issues are introduced

Inspect Debug issues

- Discover performance issues
- Distributed apps mean more dependencies

Respond Reduce mean time to recovery

- Minimize customer impact
- Fix issues/initiate rollbacks

aws

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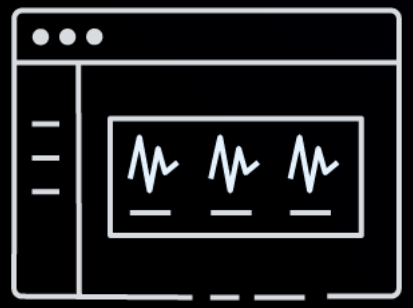
Observability with Amazon CloudWatch

Digital experience	Synthetics **RUM—client-side performance insights—new release** **Evidently—safer launches and experimentation—new release**
Application	ServiceLens X-Ray Insights Container insights, Lambda insights, Logs insights, Contributor insights
Infrastructure	Alarms and dashboards Metrics, logs, traces

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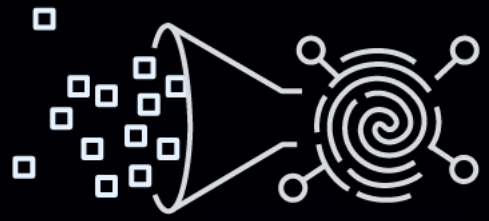
What is Amazon CloudWatch Synthetics?

Monitor your endpoints every minute, 24x7 using modular canary scripts and be alerted when your application doesn’t behave as expected.



Website and API endpoint monitoring

Availability and latency performance



Outside-in monitoring

Client-side to server-side



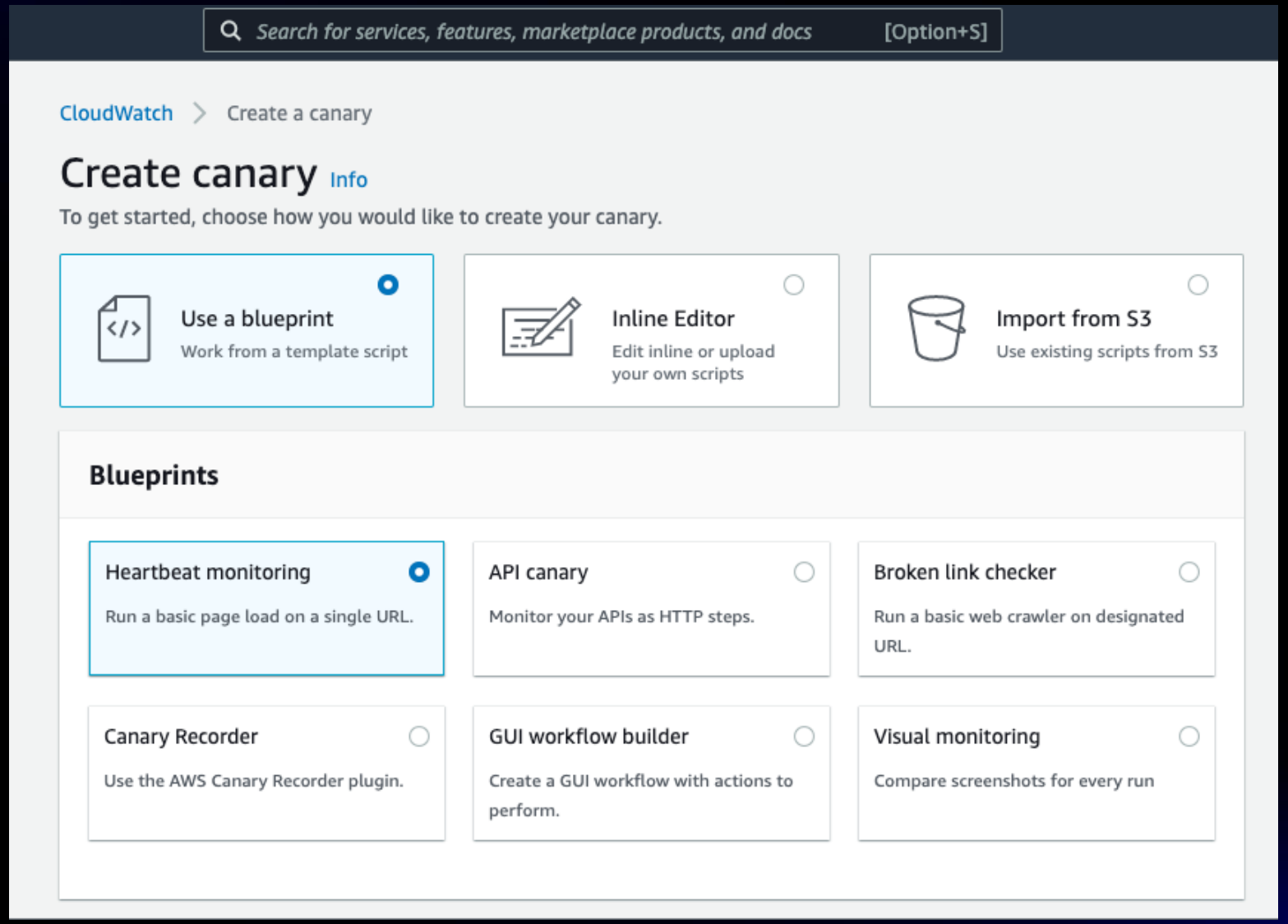
Continuous monitoring

Acts as a user and makes scheduled health checks

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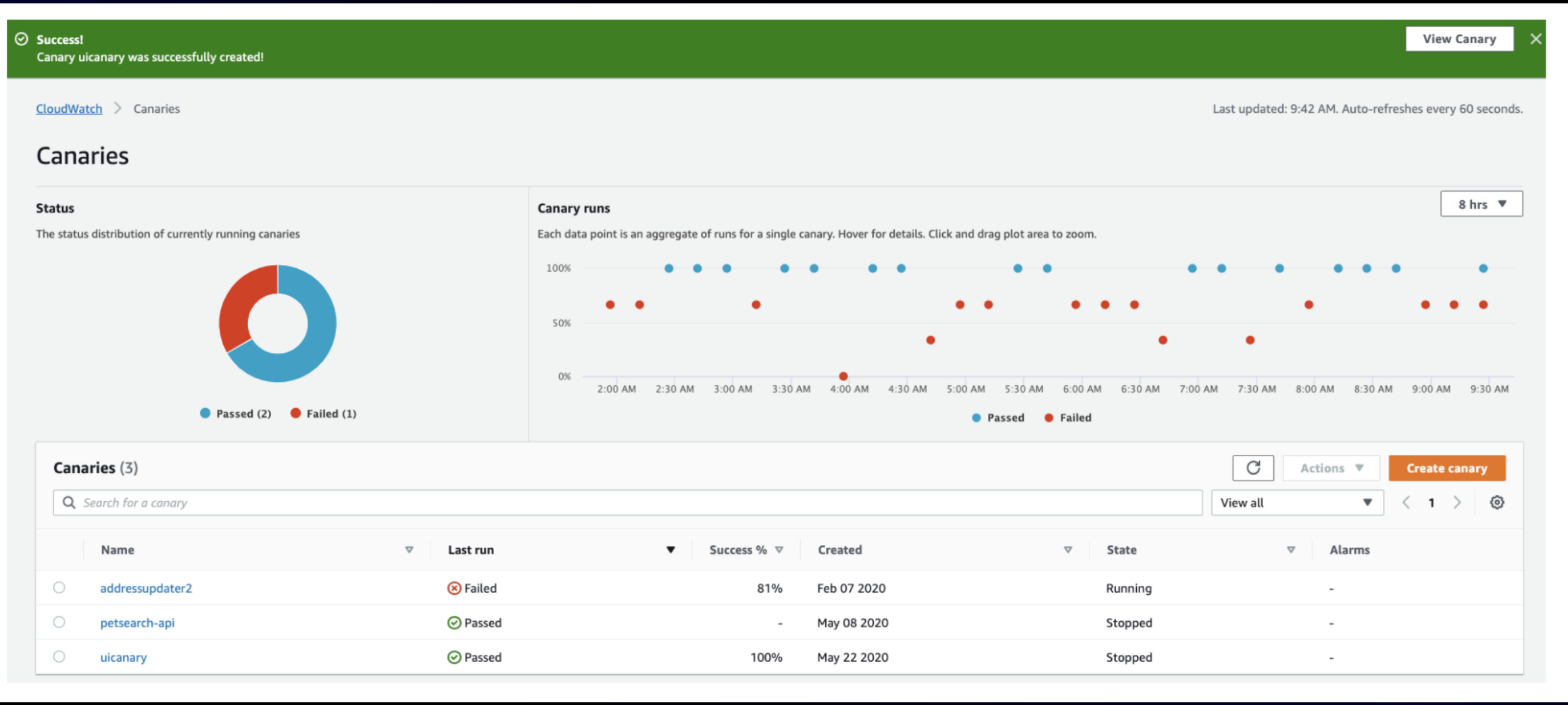
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Easy getting started



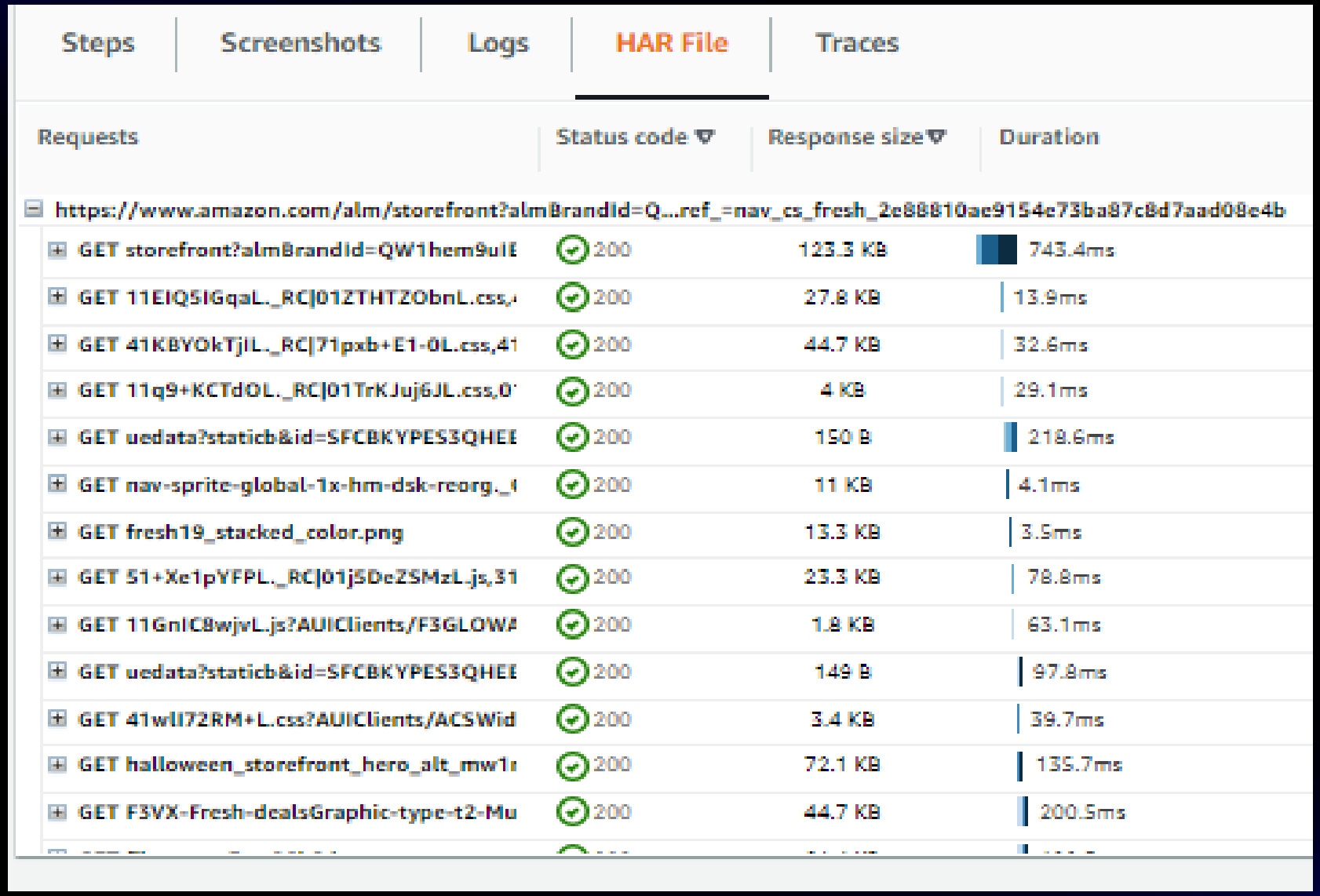
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Visualize results



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Debug using Canary run data



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But how do you measure what actual users experience?

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Where do end users fit into observability?

What about last mile issues?

Can we quantify an issue, or evaluate if it is more prevalent than expected?

How to correlate this data with your application monitoring?



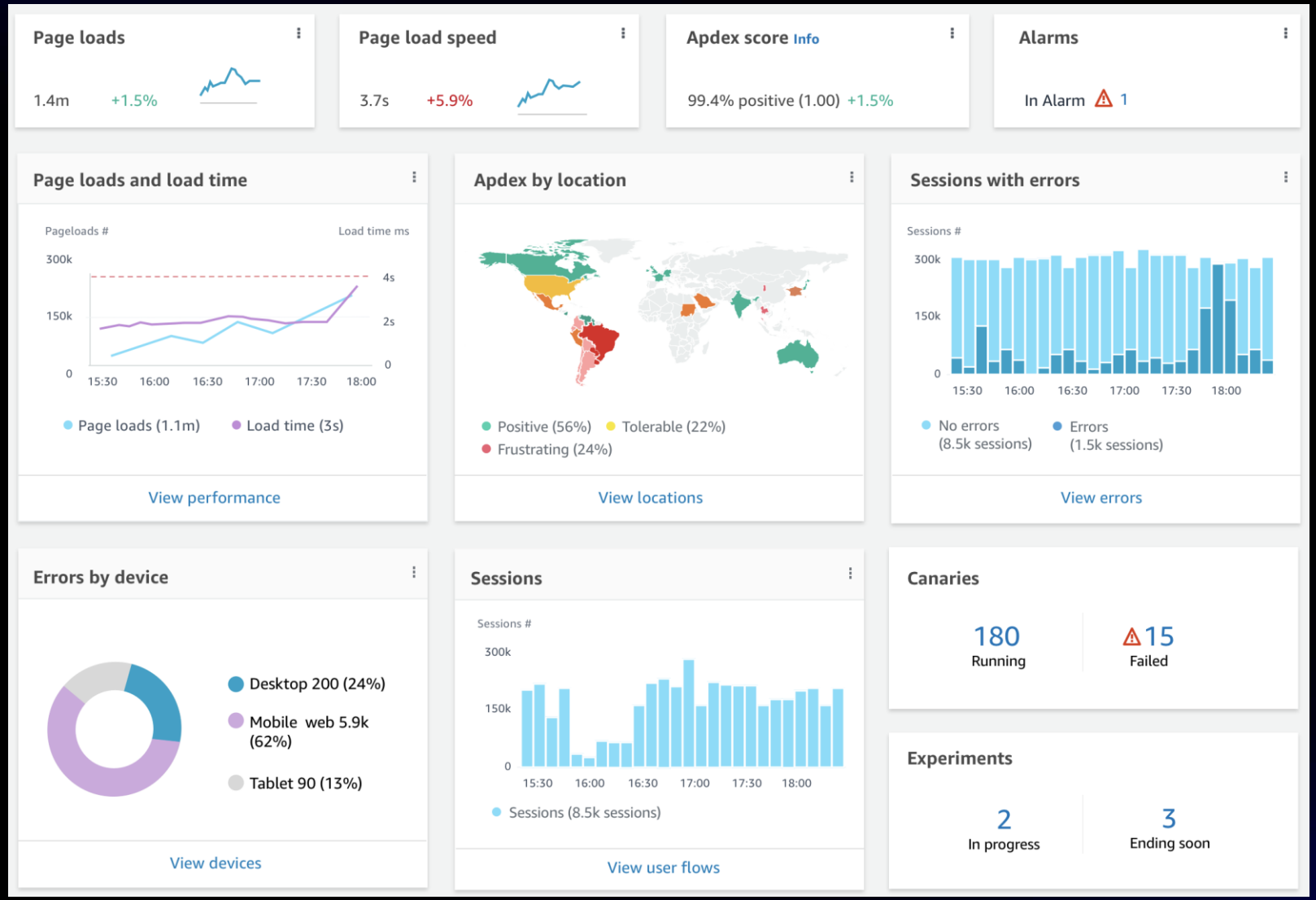
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Amazon CloudWatch RUM

NEW RELEASE

OPTIMIZE END USER EXPERIENCE THROUGH CLIENT-SIDE PERFORMANCE INSIGHTS

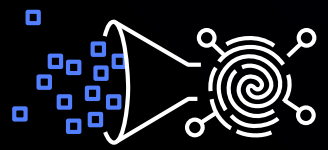


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NEW RELEASE

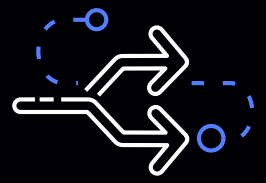
What is CloudWatch RUM?

Helps developers and DevOps engineers optimize end-user experience through real time client-side data on app performance



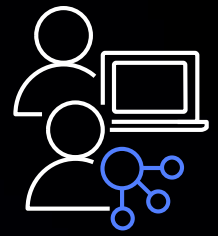
Client-side telemetry

Completes end-to-end monitoring



Correlated with resources

Client-side through server-side



Measure user impact

Get alerted and optimize user experience



Debugging made easy

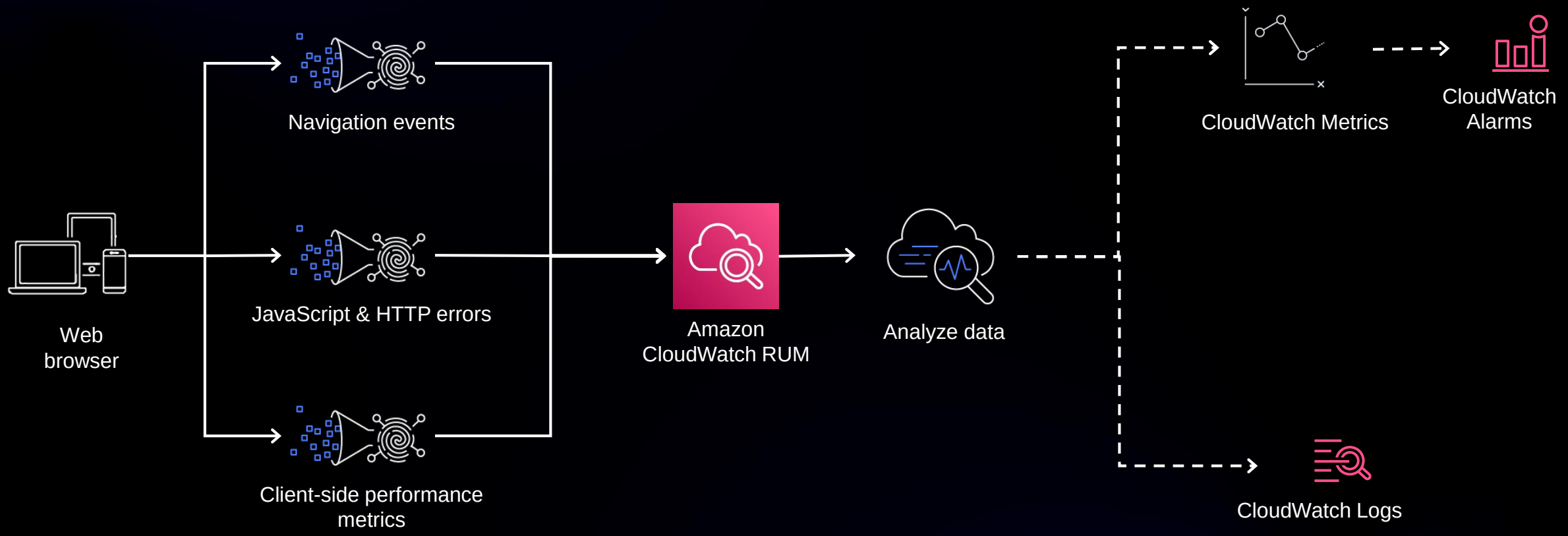
Reduce mean time to recovery

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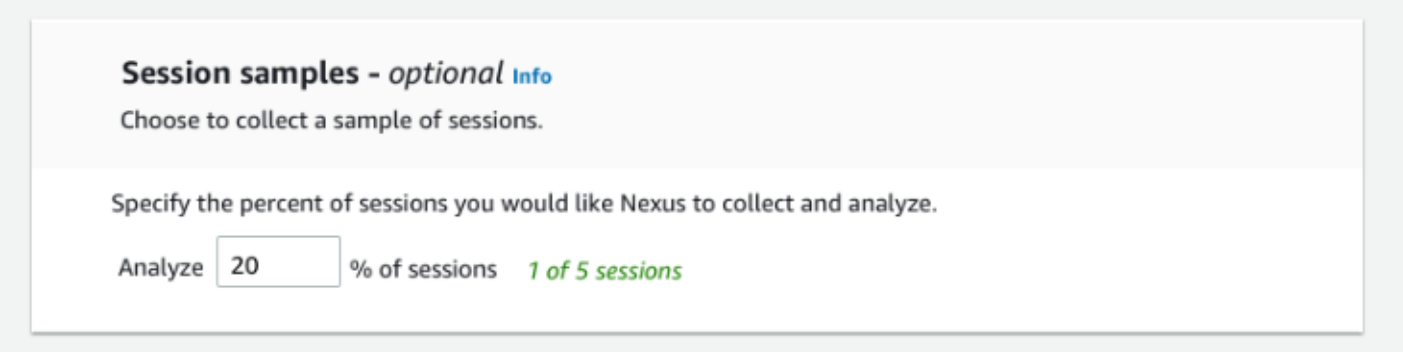
Amazon CloudWatch RUM – How it works

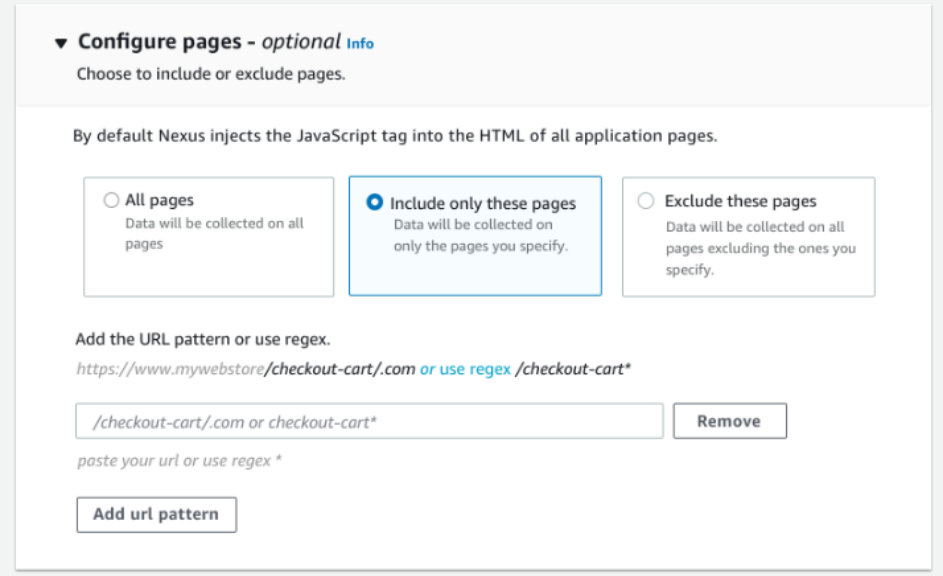


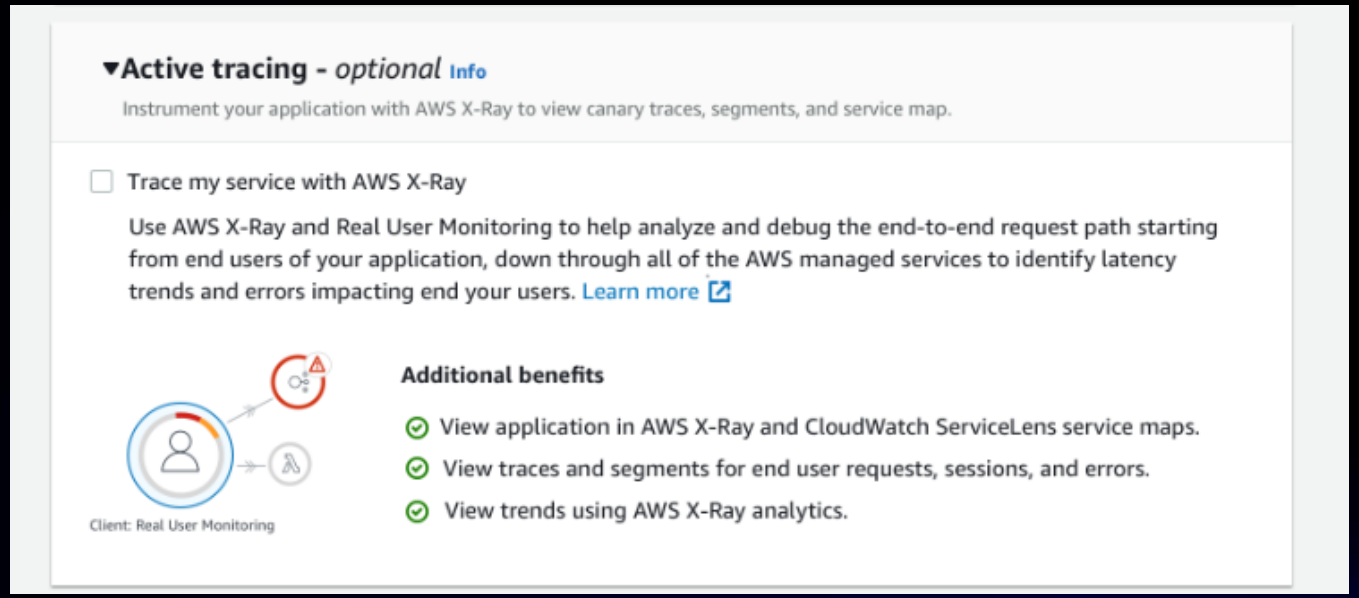
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Flexibility in configuration

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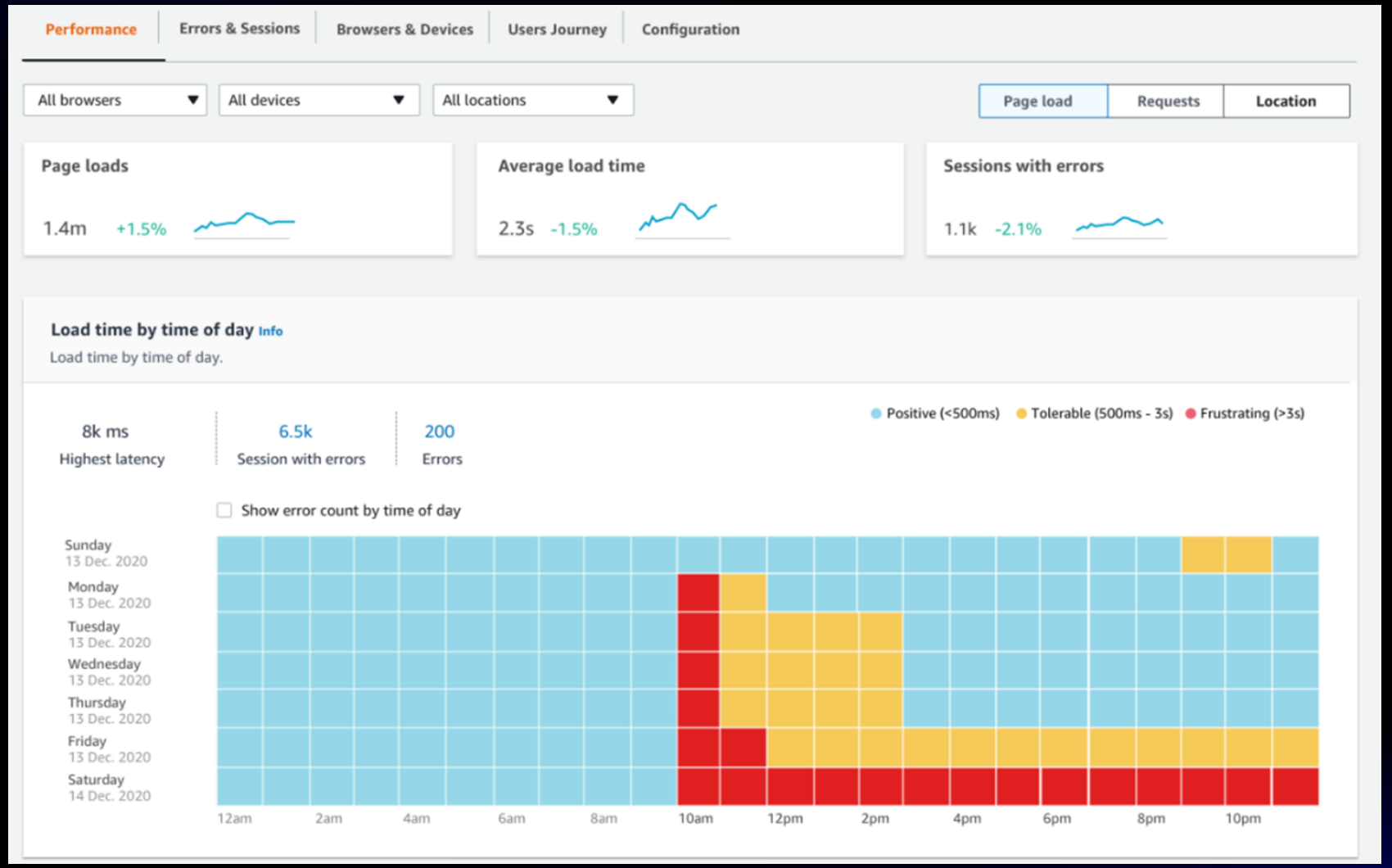




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Visualize results using CloudWatch RUM



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booking.com’s digital experience journey

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Recap

- Digital experience monitoring – why is it critical
- CloudWatch Synthetics and CloudWatch RUM
- Booking.com’s digital experience journey
- Demo of both RUM and Synthetics

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Observability sessions this week

BREAKOUT SESSIONS

COP201 – Gain enterprise visibility with AWS cloud operation dashboards

COP222 – Remove guesswork when launching new application features

COP206 – Observability the open-source way

CHALK TALKS

COP315 – Observability on a single platform on AWS

DOP202 – Increasing availability with AWS observability solutions

WORKSHOPS AND BUILDER SESSIONS

COP307 – Observability best practices for modern & traditional applications

COP316 – Open-source observability

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Resources

- Visit https://aws.amazon.com/blogs/aws/cloudwatch-rum to read more about CloudWatch RUM
- Visit https://observability.workshop.aws/ to get a hands-on experience of all AWS observability features
- Visit https://aws.amazon.com/cloudwatch/pricing/ to learn more about CloudWatch's pricing

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Thank you!

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