

A person with dark hair and glasses is seen from the side, working on a laptop. The laptop screen displays a circular data visualization with concentric circles and radial lines, resembling a radar chart or a network diagram. The person is wearing a dark blue and red striped long-sleeved shirt. The background is dark and out of focus, showing other computer monitors and a desk.

PROD PERFECT

A False Sense of Security:

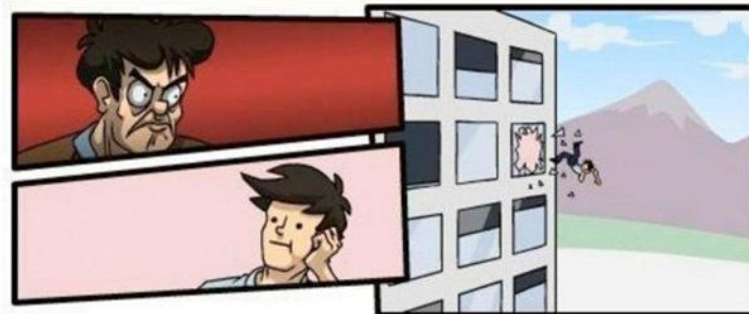
Rethinking E2E Testing and API Monitoring for a New Breed of Uptime, Performance, and Security

Erik Fogg

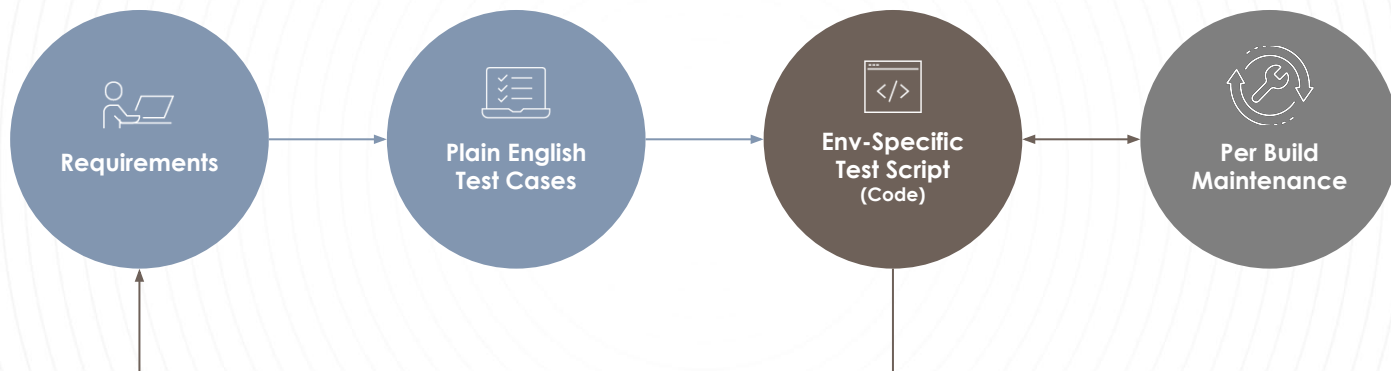
CoFounder & CRO, ProdPerfect

Patrick Poulin

CoFounder & CEO, API Fortress



Quality Assurance: The Typical Industry Cycle



Manual Process



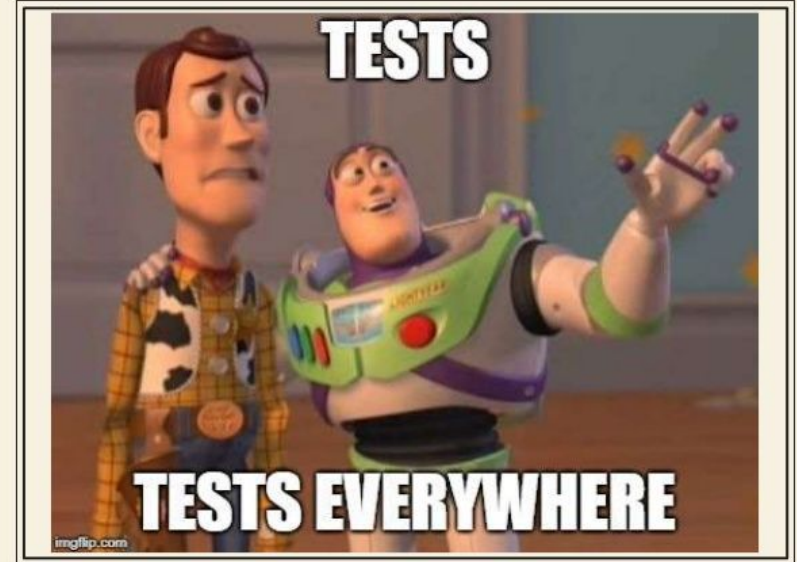
Manually-Built Test Automation



Output: The Typical Formula

Output = Number of tests written + maintained

⇒ More tests = more QA = better



As a result...

Prioritizing testing is difficult.

Two different teams get two different test suites:





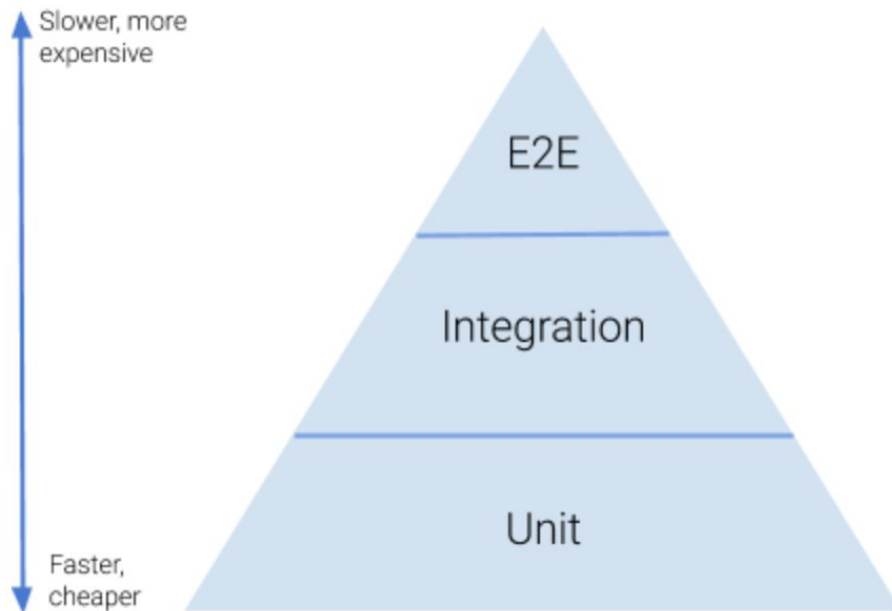
1. Missed critical bugs
2. Higher maintenance costs of many lower-value tests
3. High runtime → fewer test runs

@gil_zilberfeld



But, E2E testing requires fierce prioritization.

1. **Not all features are equally valuable to test.**
2. **Not all E2E tests are equally valuable to have.**
3. **You need a smaller E2E test suite to provide better- fidelity QA.**





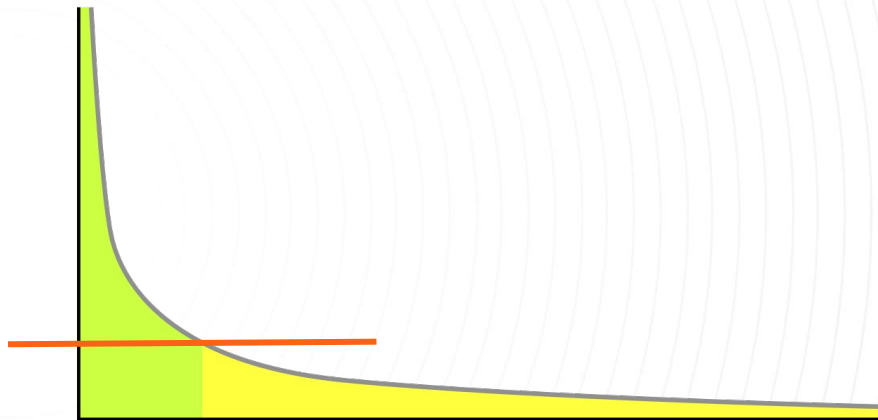
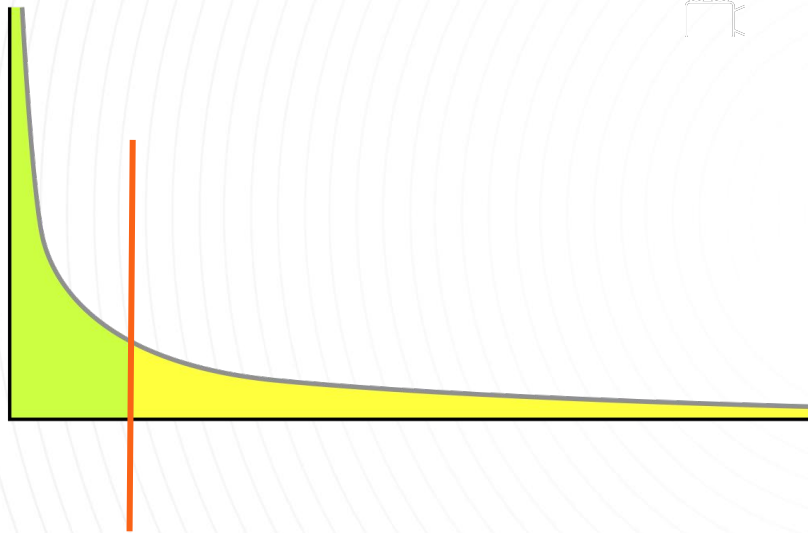
The Good News...

The data you need exists.

- Users are already telling us exactly how they want the application to work
- We can test to make sure *their* priorities always work
- “Just” collect the data and analyze it



What Really Matters to Users: Head vs. Long Tail

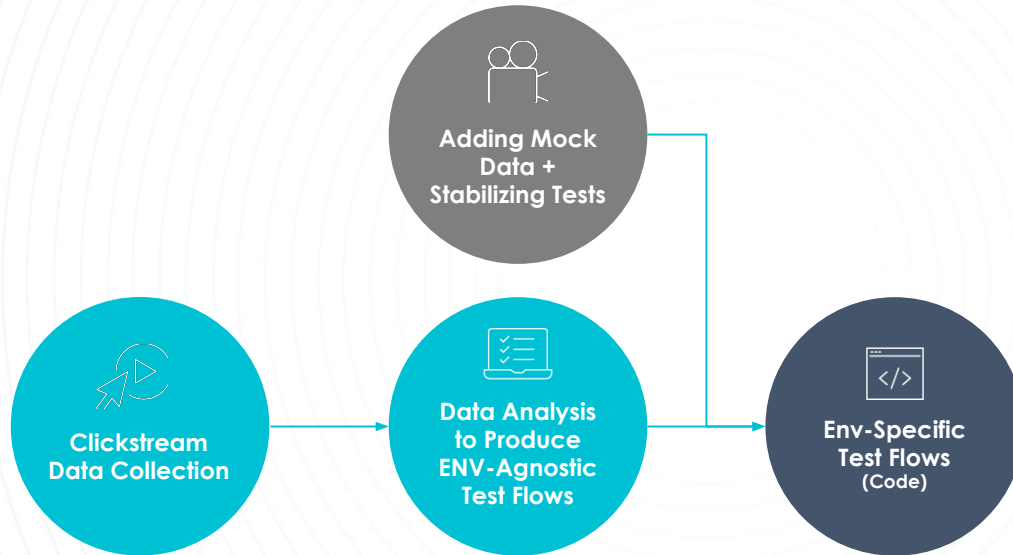




PROD PERFECT

How We Approach E2E Test Case Discovery

OUR TEST DEVELOPMENT PROCESS



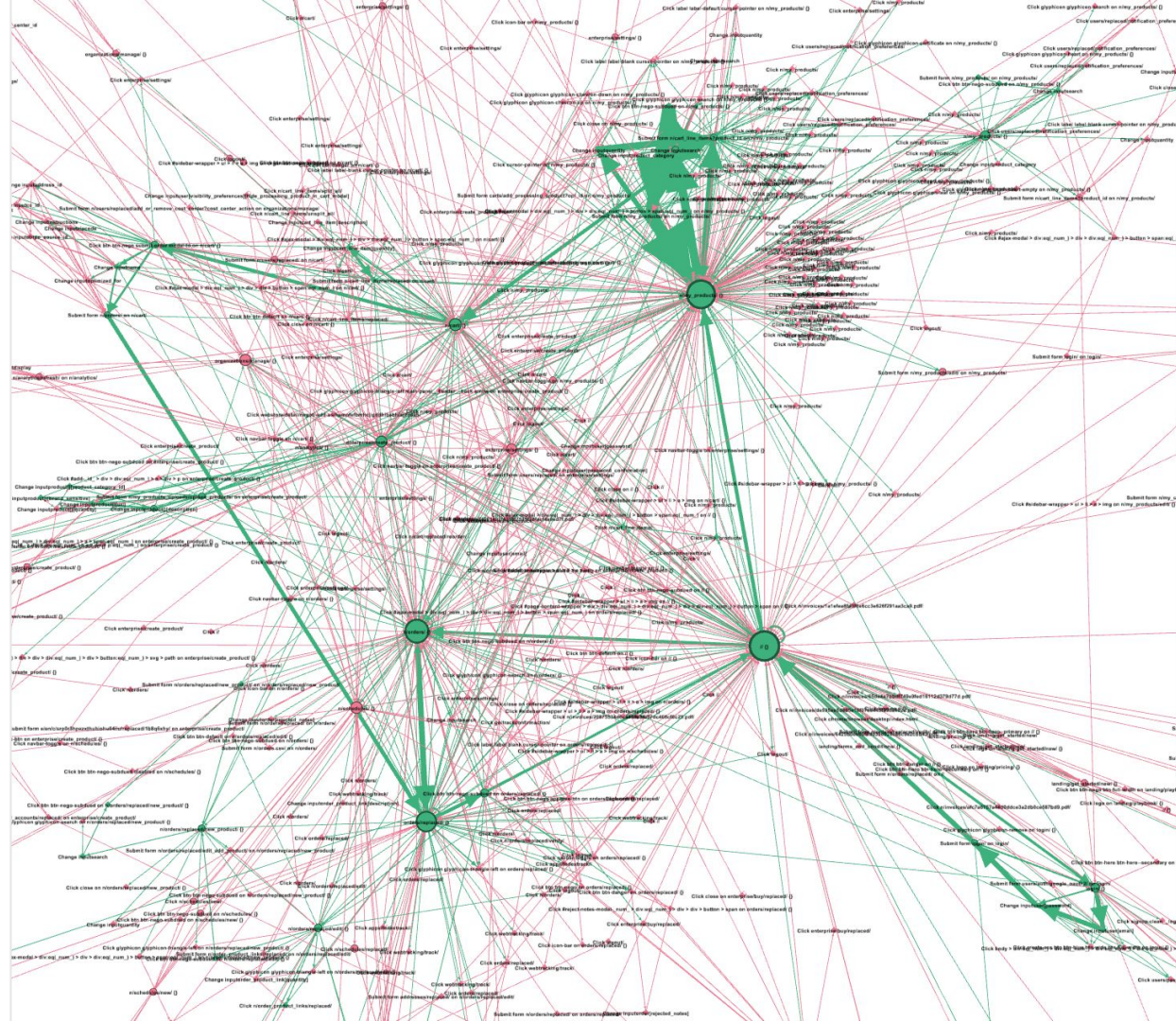
Fully Automated



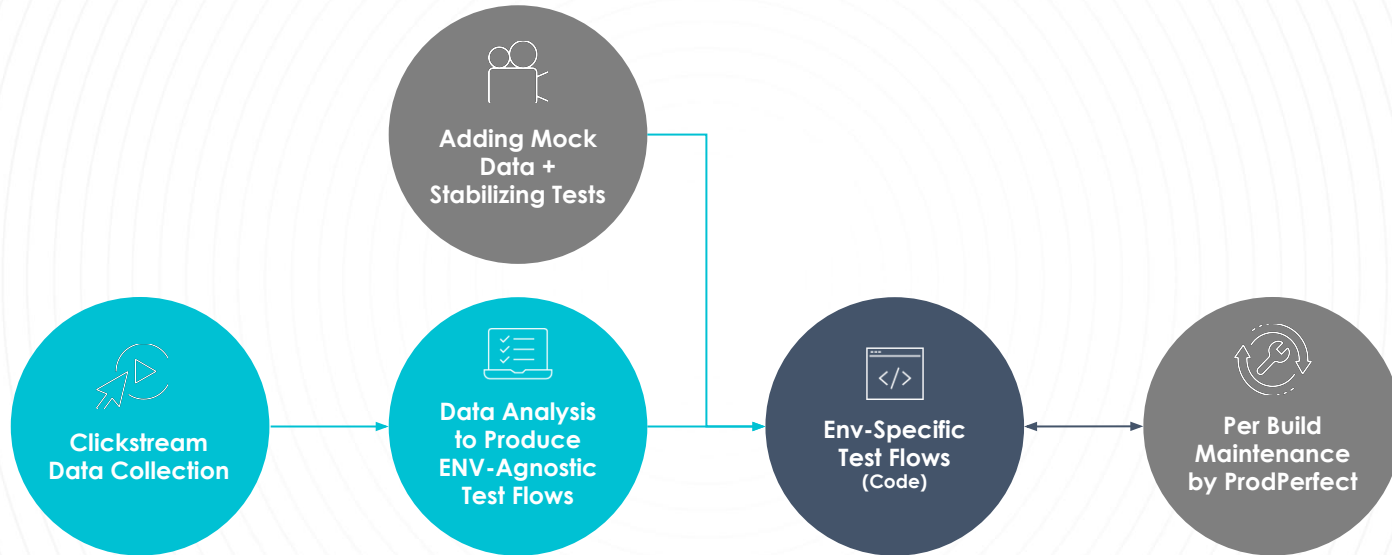
Automated with ProdPerfect Delivery Engineer



2 Total Coverage



OUR TEST DEVELOPMENT PROCESS



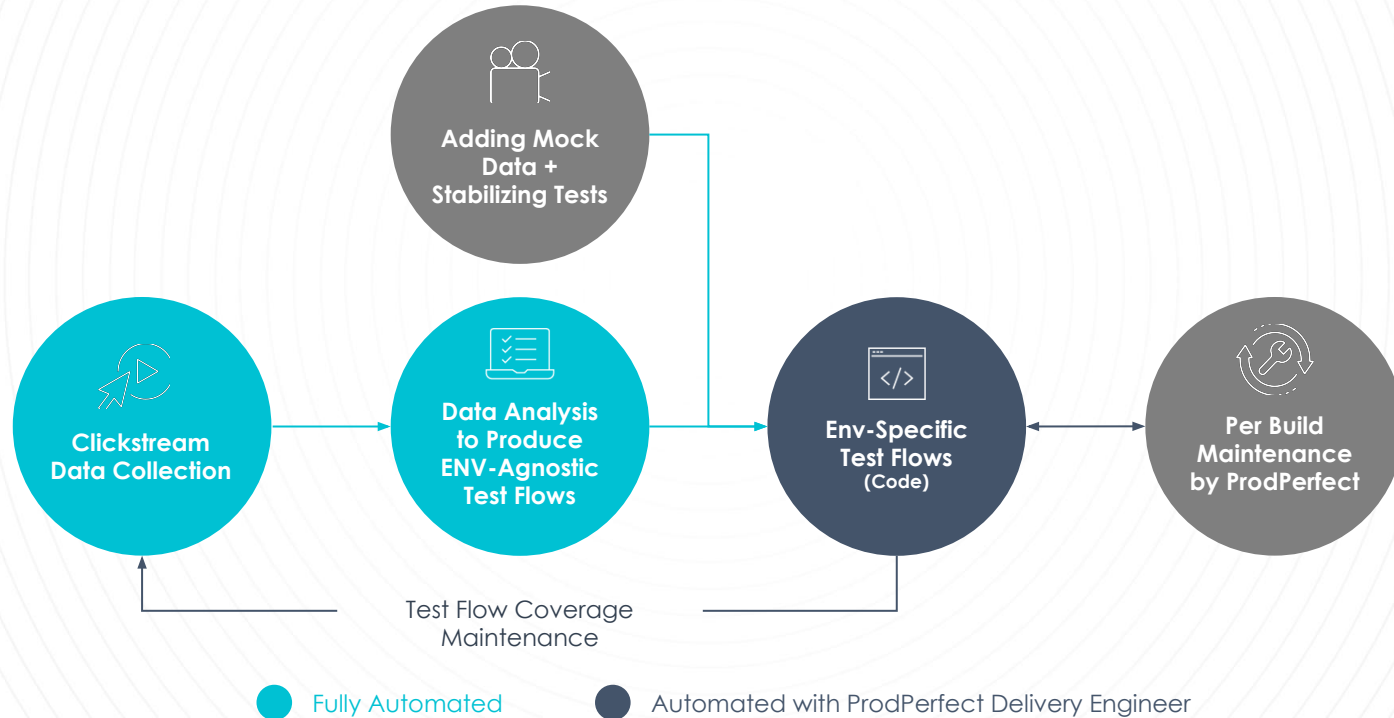
Fully Automated



Automated with ProdPerfect Delivery Engineer



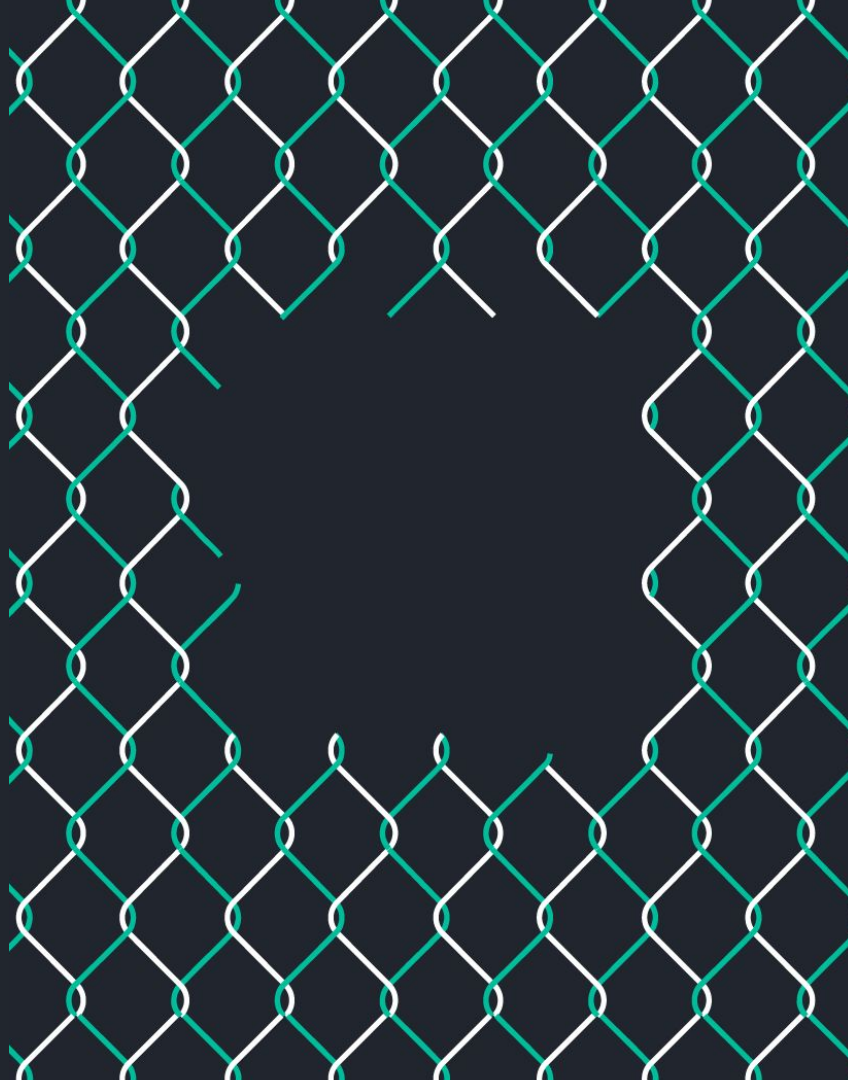
OUR TEST DEVELOPMENT PROCESS





API Testing & Monitoring A False Sense of Security

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What's A Good API Monitor?



Security

Akamai's State of the Internet report (pdf) found "83% of all web traffic in 2018 was in API traffic."

"Through 2022, at least 95% of cloud security failures will be the customer's fault."

Jay Heiser, VP at Gartner







What's a Good API?

Passes Automated Tests
99.9% Functional Uptime



Functional Errors & Uncaught Downtime

Security



Twitter

17 million
accounts



India

1.1 billion
identities



USPS

60 million personal
account details

Who Owns API Functional Uptime?



Monitoring Platform Shortcomings:

1. “Synthetic Testing”

A euphemism for minimal API testing capabilities

3. Using a Different Platform

Tests are written outside of QA by stakeholders with little/no domain knowledge

2. User Profile

People in charge of the monitors aren't testing professionals.

4. Test Intelligence

Tests must capture real consumer flows or user behavior

Problem in a Nutshell

On-Demand API Monitoring

The background of the slide is a solid teal color. On the right side, there is a faint, light-teal graphic. It consists of two concentric circles. Overlaid on these circles is a line graph with a jagged, upward-trending line. A large, light-teal arrow points upwards from the bottom right towards the center of the circles.

Functional
Testing



End to End
Testing



On-Demand Functional Tests and Monitors for Your APIs

Go beyond uptime with functional
uptime: a better metric for continuous
API quality and reliability

[View Solution Brief](#)



Which Applies To You?

Whether just starting your journey to improve API quality or optimize your monitoring strategy, our on-demand API functional monitors can be ready out-of-the-box to accelerate your path without needing to increase IT resources.



Developer Portals



Partner APIs



Public APIs for
Mobile apps

Let's talk ROI.



REDUCE RISK

- Partner with specialists
- Catch a wider range of API bugs and vulnerabilities
- 95% of API breaches caused by human error
 - Catch and fix functional errors before going live

INCREASE OPS EFFICIENCY

- Increase regression testing without increasing IT resources
- Shorten test sprints by 40% or more
- Accelerate time to market
- Improve cross-team collaboration

Q&A

