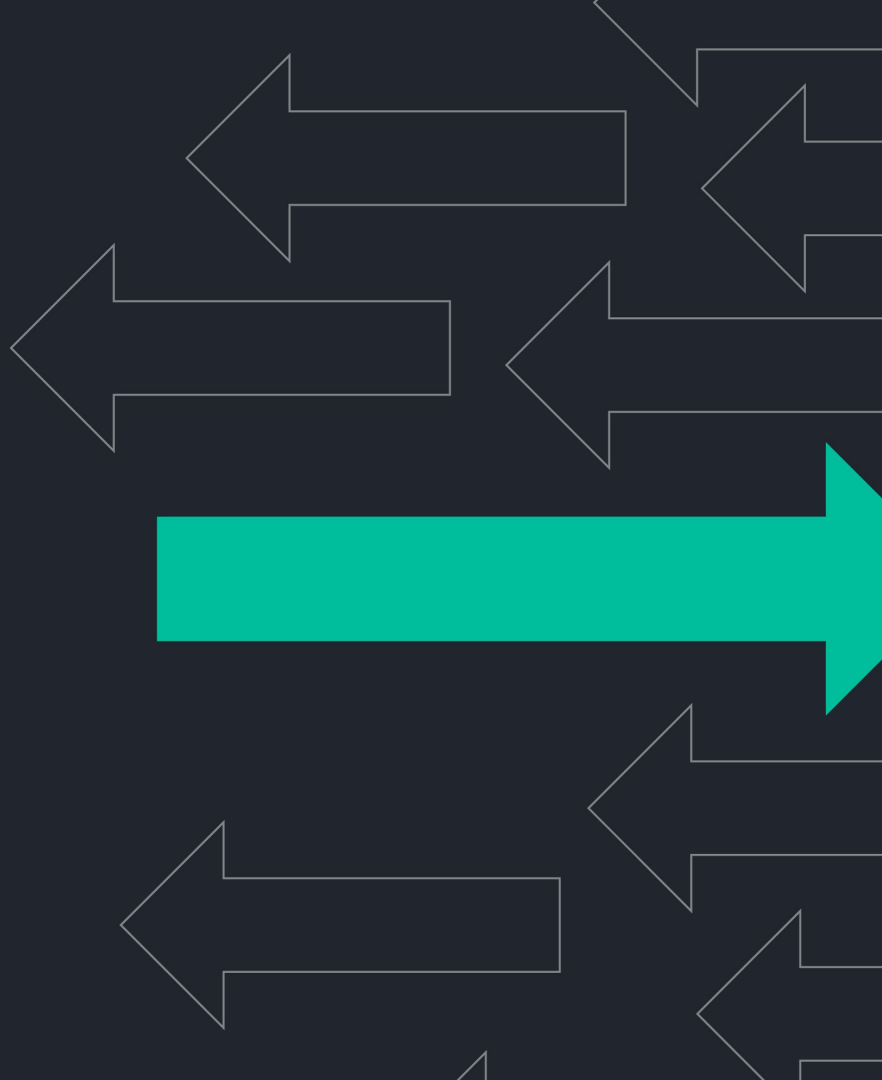
APIFORTRESS

Shift API Testing Right with Monitoring



Patrick Poulin
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Akamai's State of the Internet report 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

Security

Twitter

17 million accounts

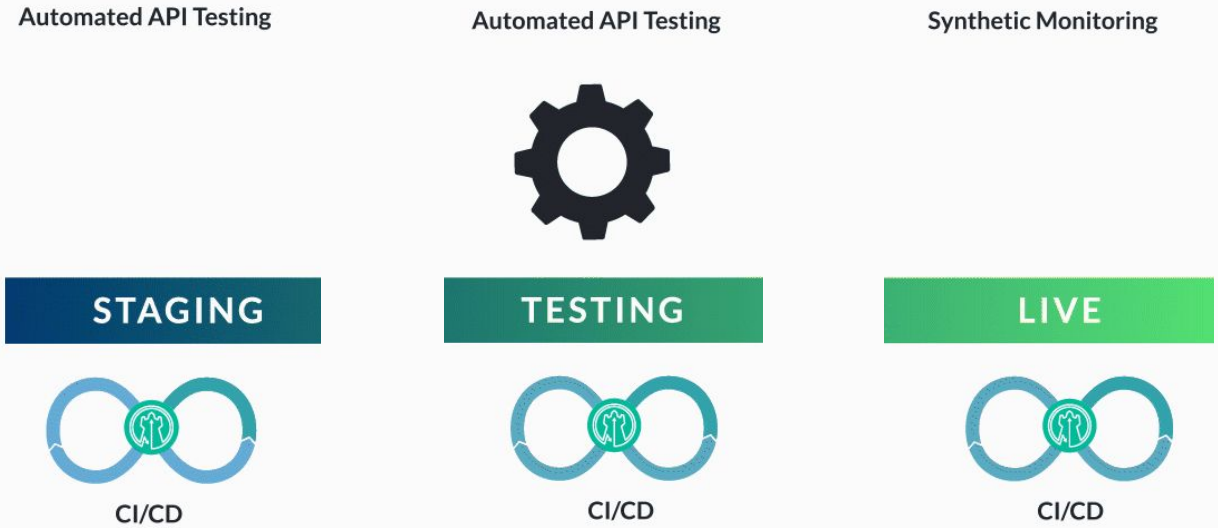
India

1.1 billion identities

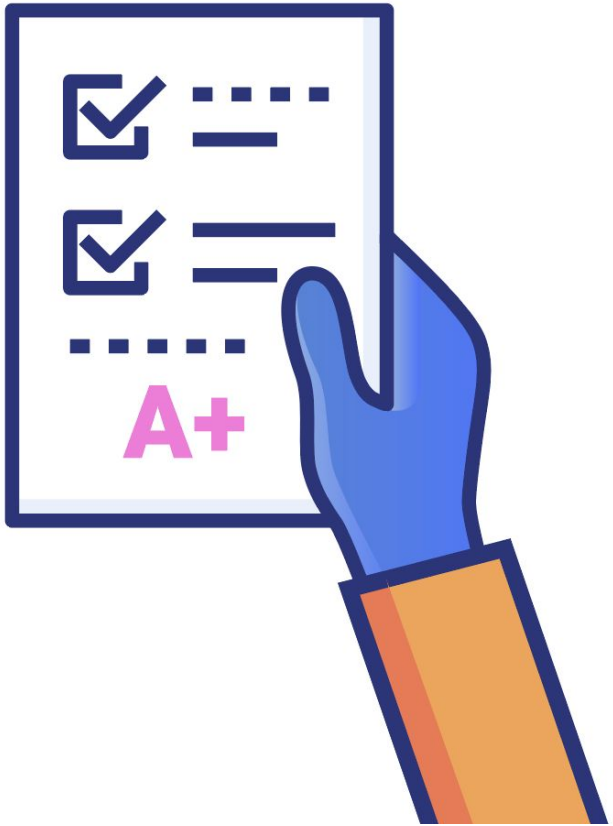
USPS

60 million personal account details

What Happened?


Automated API Testing
STAGING
CI/CD
Automated API Testing
TESTING
CI/CD
Synthetic Monitoring
LIVE
CI/CD

The Problem


A+

Test in Production!

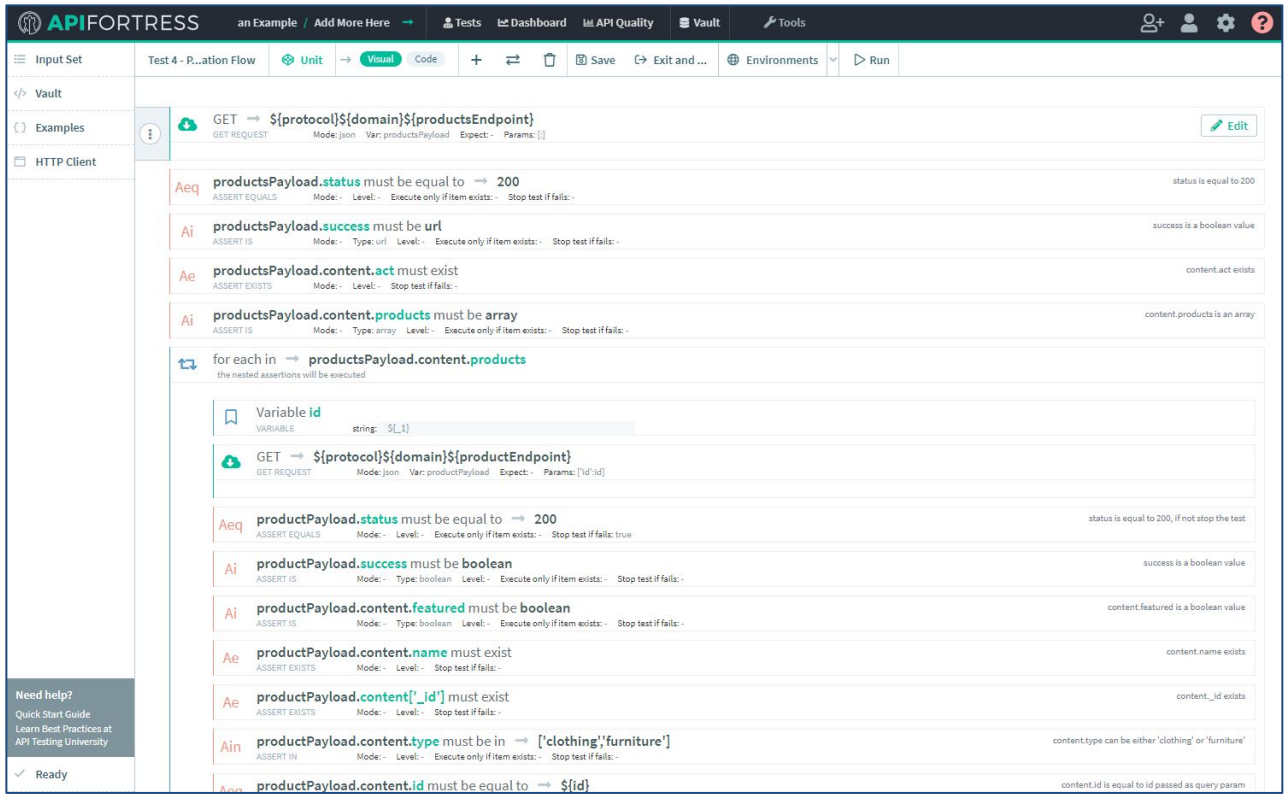
Production Testing = Monitoring

What's A Good API Monitor?

{
"status": 200,
"success": true,
"content": {
"flights": [
{
"_id": "53077f2ee4b0efa630df2ec4",
"id": "77439d",
"company": {
"id": 912,
"name": "Alitalia",
"one_vector": false
},
"from": {
"label": "Venice",

Search

1


APIFORTRESS
an Example / Add More Here
Tests
Dashboard
API Quality
Vault
Tools
Input Set
Vault
Examples
HTTP Client
Test 4 - P...ation Flow
Unit
Visual
Code
Save
Exit and ...
Environments
Run
GET → ${protocol}${domain}${productsEndpoint}
Edit
productsPayload.status must be equal to → 200
productsPayload.success must be url
productsPayload.content.act must exist
productsPayload.content.products must be array
for each in → productsPayload.content.products
the nested assertions will be executed
Variable id
GET → ${protocol}${domain}${productEndpoint}
productPayload.status must be equal to → 200
productPayload.success must be boolean
productPayload.content.featured must be boolean
productPayload.content.name must exist
productPayload.content['_id'] must exist
productPayload.content.type must be in → ['clothing','furniture']
productPayload.content.id must be equal to → ${id}
Need help?
Quick Start Guide
Learn Best Practices at API Testing University
Ready

What's a Good API?

Passes Automated Tests

99.8% Functional Uptime

Functional Errors & Uncaught Downtime

How is This Happening?

Who Owns API Functional Uptime?

APPDYNAMICS
part of Cisco

BlazeMeter

DATADOG

dynatrace

New Relic.

pingdom

Monitoring Platform Shortcomings:

1. "Synthetic Testing"

A euphemism for minimal API testing capabilities

2 User Profile

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

3. Using a Different Platform

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

4. Test Intelligence

Tests must capture real consumer flows or user behavior

Problem in a Nutshell

Functional API Monitoring

Automated Testing Team

Monitoring Team

Let Testing Experts Monitor APIs

REDUCE RISK

- They are specialists with domain knowledge
- 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 no rollbacks

INCREASE OPS EFFICIENCY

- Increase regression testing without increasing IT resources
- Accelerate time to market
- Improve cross-team collaboration

Q&A