

Agile + DevOps **EAST**

A TECHWELL EVENT

DT6

Integrating Testing into DevOps

Thursday, November 8th, 2018 11:30 AM

Continuous Load Testing for DevOps

Presented by:

Kevin Dunne

Tricentis

Brought to you by:




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888-268-8770 · 904-278-0524 - info@techwell.com - <http://www.starwest.techwell.com/>

Kevin Dunne

Kevin Dunne is the general manager of Tricentis Flood, ensuring their continued commitment to innovation and delivering tools to create software that scales. With a deep interest in the emerging trends in software development and testing, Kevin is dedicated to collaborating with thought leaders in this space. Kevin comes to Tricentis, the parent company of Flood, thanks to its joining forces with QASymphony, where he was one of the first employees. Kevin has seen many facets of the business, working in sales, customer support, marketing, and product management, and has managed testing on large government and Fortune 500 engagements while delivering ERP implementations and custom software development. Kevin holds a bachelor of science degree from Vanderbilt University.

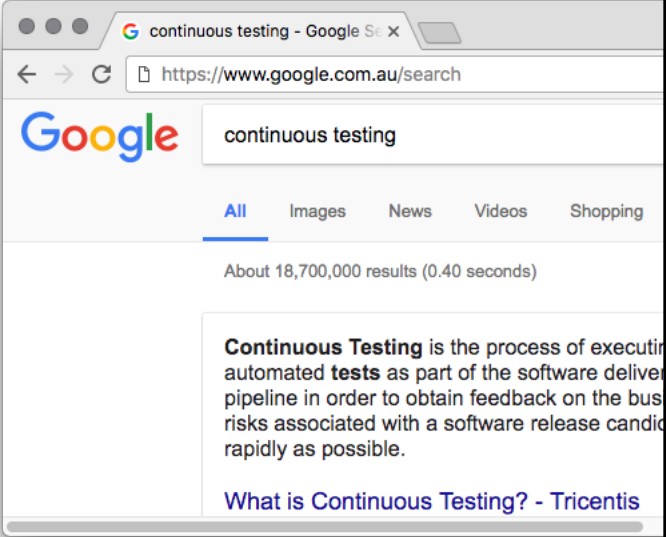
TRICENTIS



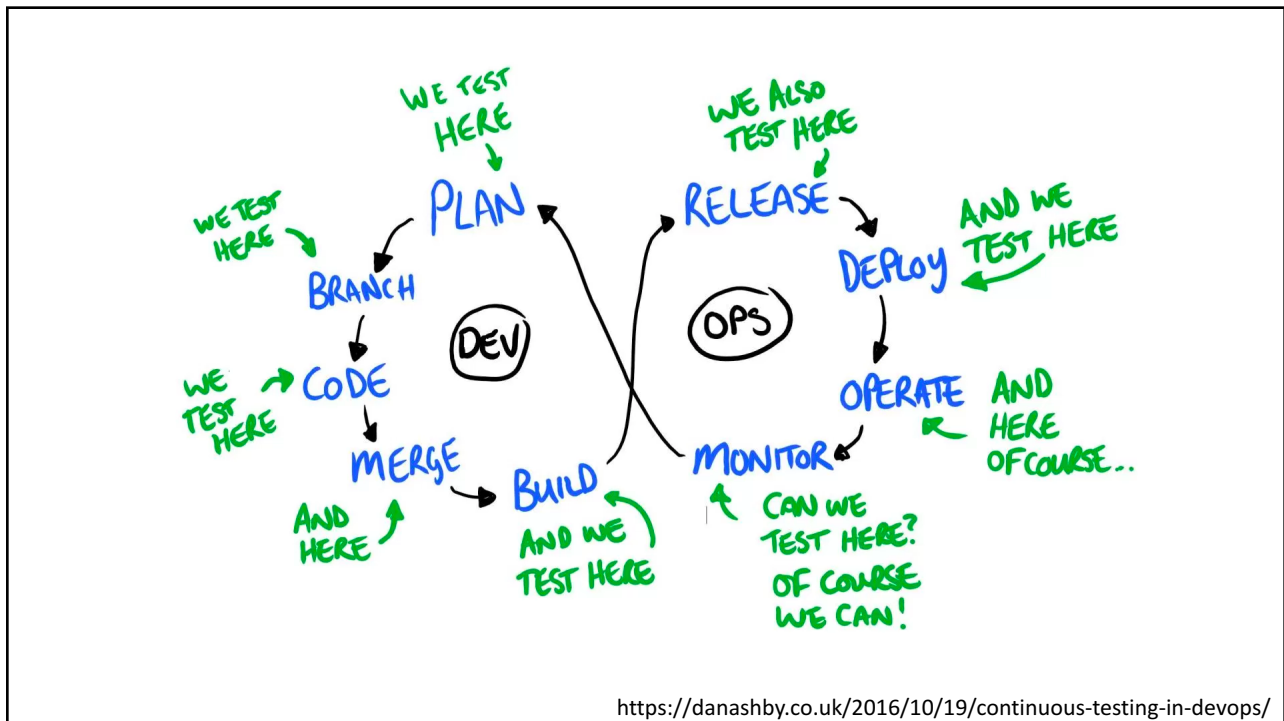
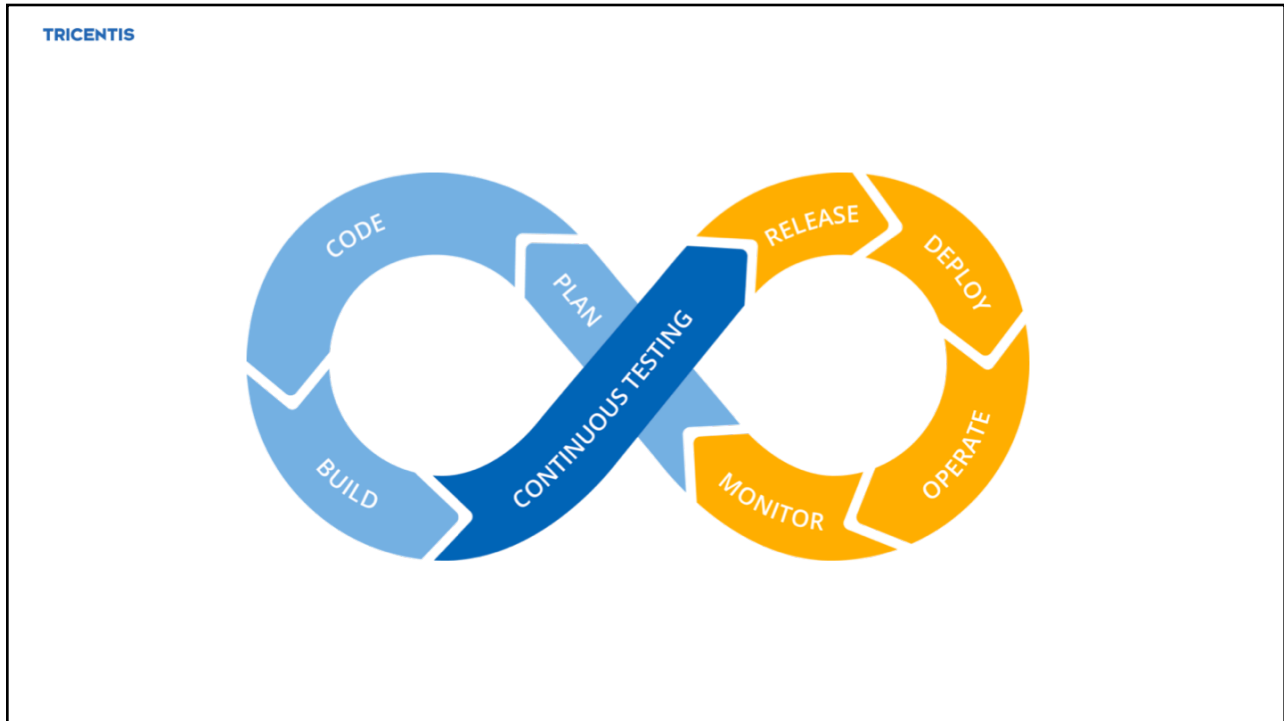
Continuous Load Testing for DevOps

The Future is BLU

WHY DO WE CARE
SO MUCH ABOUT
CONTINUOUS
TESTING?



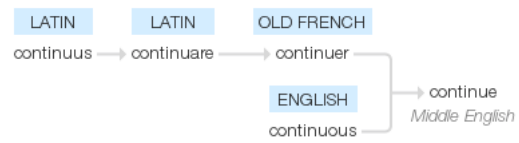
The screenshot shows a Google search interface. The search bar contains the text "continuous testing". Below the search bar, there are tabs for "All", "Images", "News", "Videos", and "Shopping". The "All" tab is selected. Below the tabs, it says "About 18,700,000 results (0.40 seconds)". A knowledge panel is visible on the right side of the search results, containing the following text: "Continuous Testing is the process of executing automated tests as part of the software delivery pipeline in order to obtain feedback on the business risks associated with a software release candidate as rapidly as possible." Below the knowledge panel, there is a link titled "What is Continuous Testing? - Tricentis".



LOAD TESTING

“putting demand on a system and measuring it for performance”

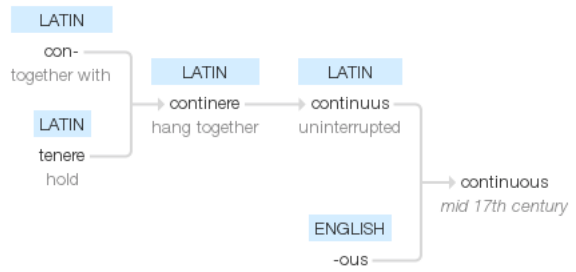
Origin



CONTINUE

“persist, carry on or resume”

Origin



CONTINUOUS

“without interruption, unbroken whole and progressive”

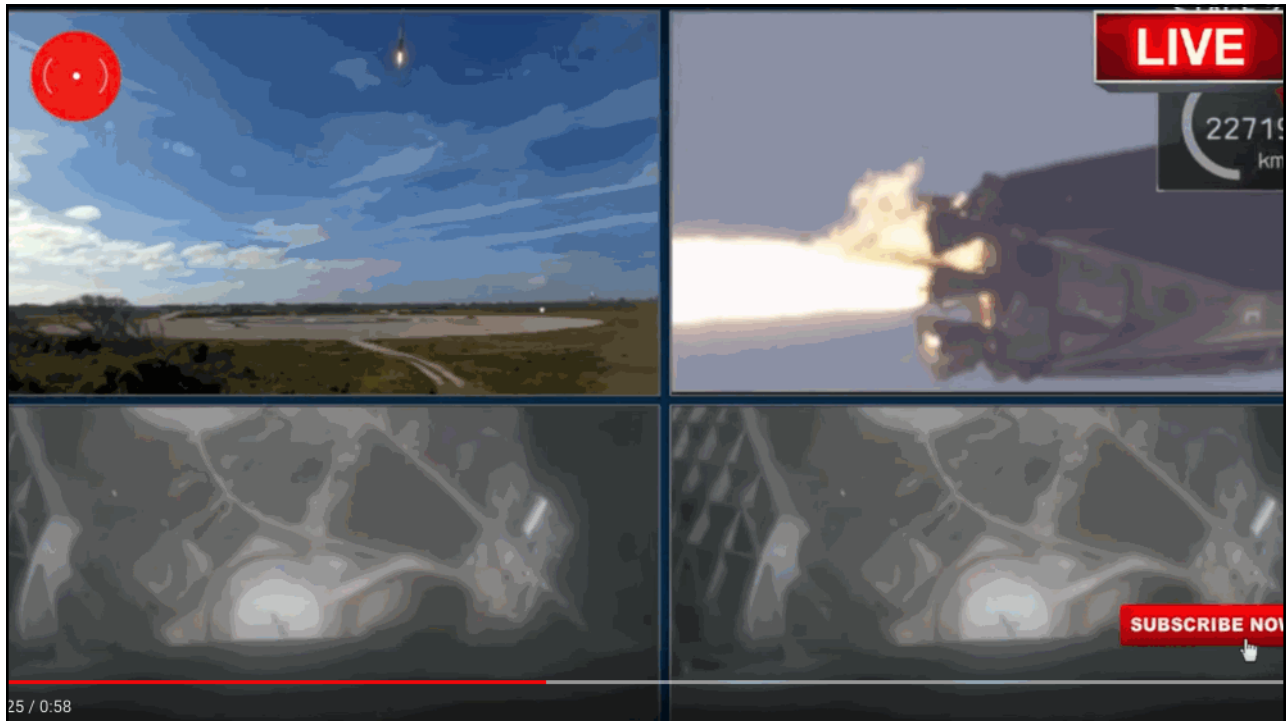


Reusability

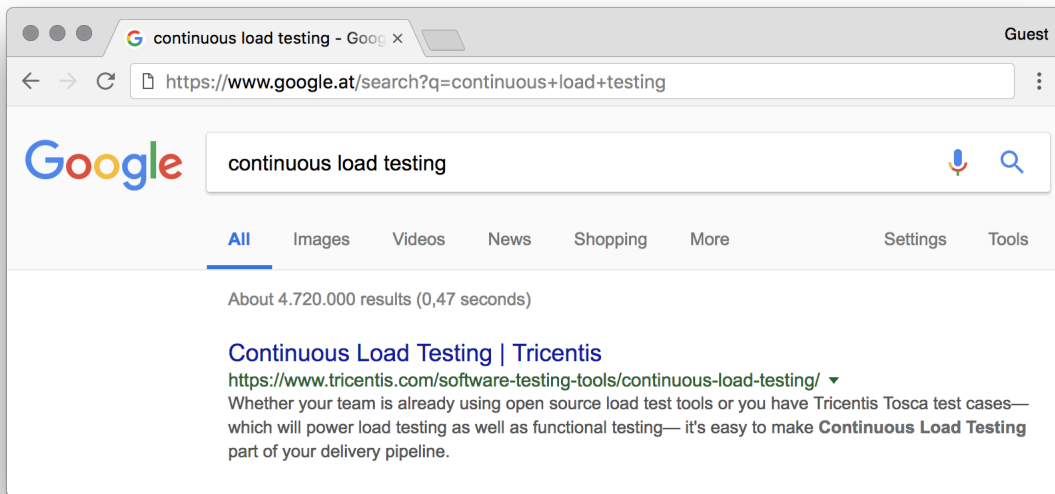


Data





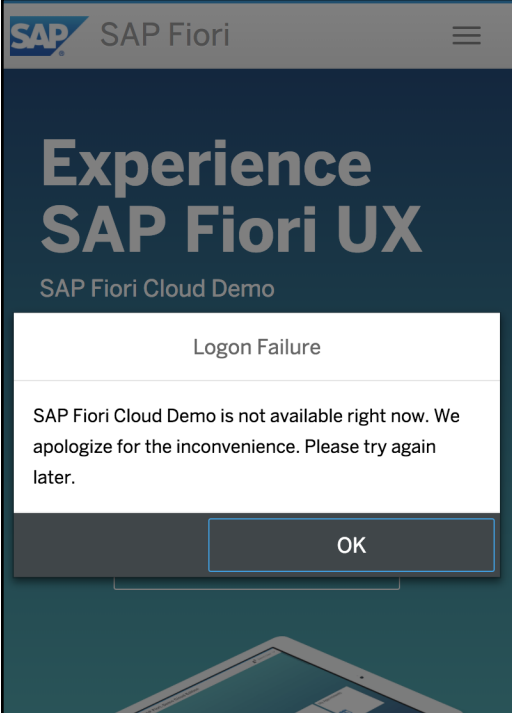
WHY DO WE CARE SO MUCH ABOUT CONTINUOUS LOAD TESTING?



Guest



PERFORMANCE
everyone cares



SAP Fiori

Experience SAP Fiori UX

SAP Fiori Cloud Demo

Logon Failure

SAP Fiori Cloud Demo is not available right now. We apologize for the inconvenience. Please try again later.

OK

AVAILABILITY

everyone knows

RELIABILITY

everyone impacted

Purchase Contract:
4600021296

Vendor:
0000003701

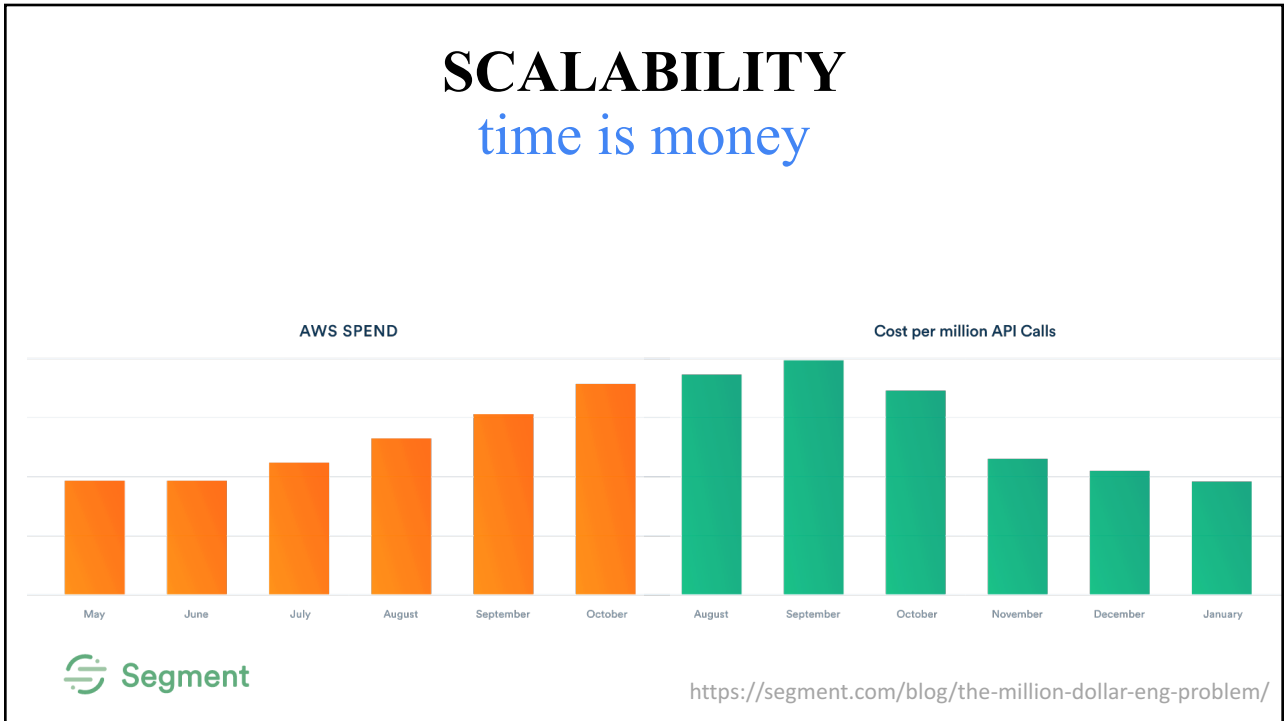
Vendor Name:
eSupplier, Inc

Item No:
00010

Material:
DPC2013

Name	x Headers Preview Response Cookies Timing
<input type="checkbox"/> UserDefaultP...	<ul style="list-style-type: none"> ▼ General Request URL: https://www.sapfioritrial.com Request Method: GET Status Code: ● 500 Internal Server Error Remote Address: 92.123.21.155:443 Referrer Policy: no-referrer-when-downgrade
<input type="checkbox"/> Component-...	
<input type="checkbox"/> manifest.json	
<input type="checkbox"/> ?\$filter=Statu...	
<input type="checkbox"/> Context?\$sor...	
<input type="checkbox"/> d3.js	
<input type="checkbox"/> jquery-ui-wid...	<ul style="list-style-type: none"> ► Response Headers (9) ▼ Request Headers view source Accept: */* Accept-Encoding: gzip, deflate, br Accept-Language: en-US,en;q=0.9 Connection: keep-alive
<input type="checkbox"/> jquery-ui-mo...	
<input type="checkbox"/> jquery-ui-dra...	
<input type="checkbox"/> jquery-ui-dro...	

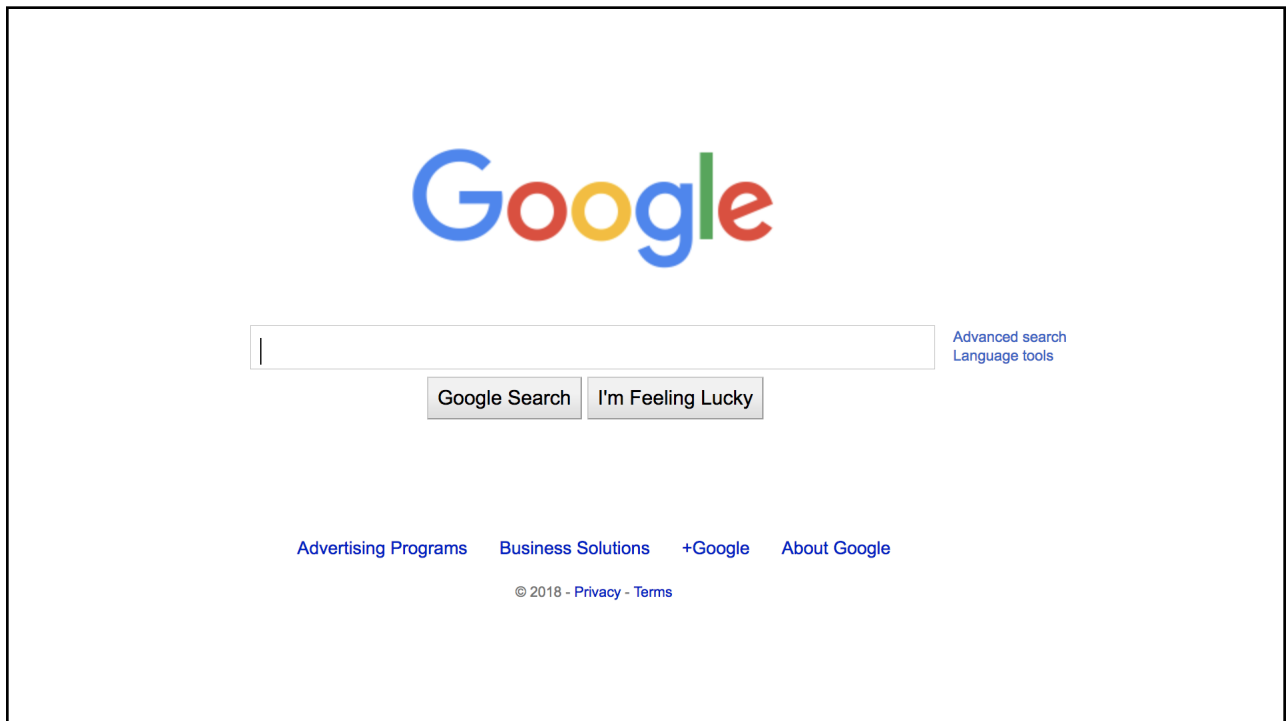
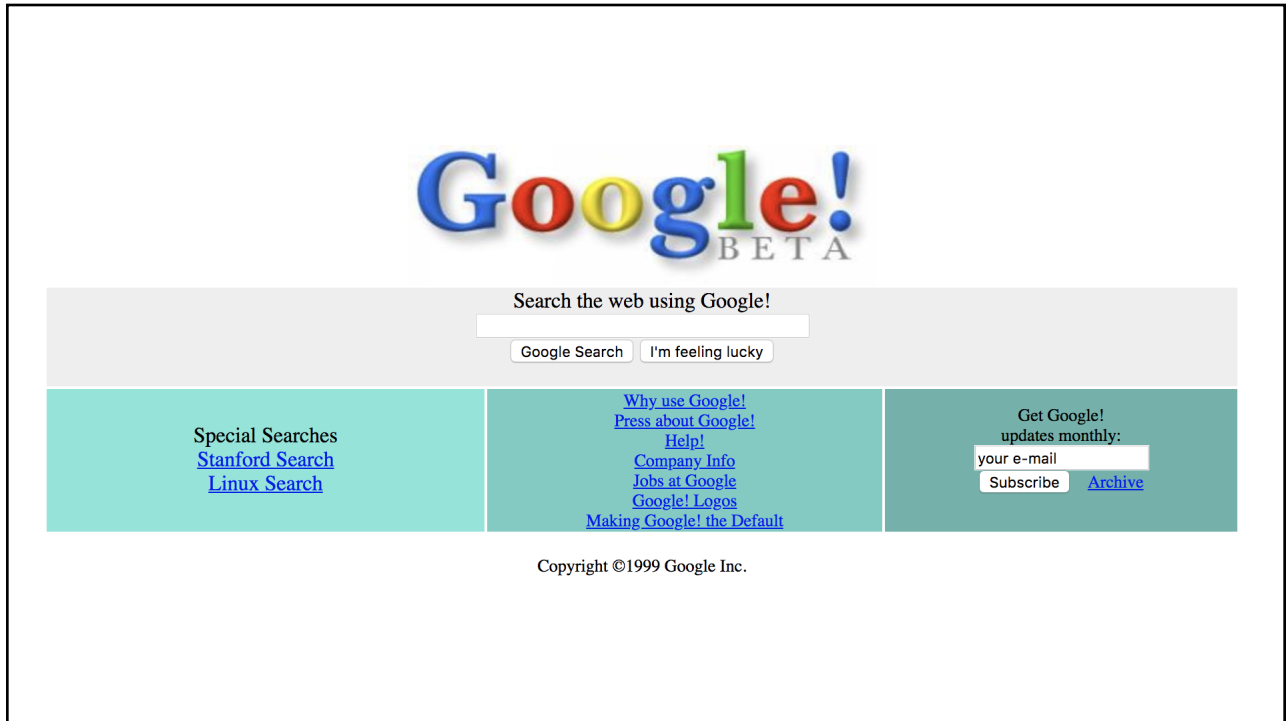
Approve
Reject
Claim
...
↗

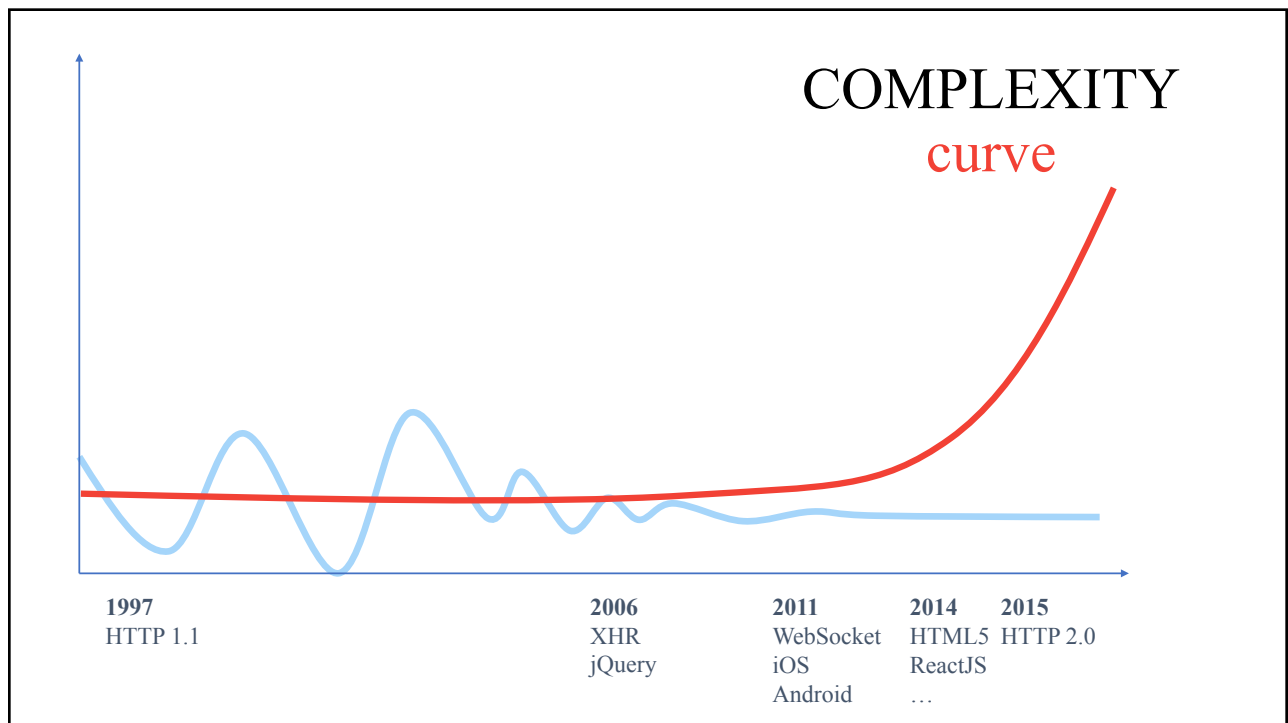
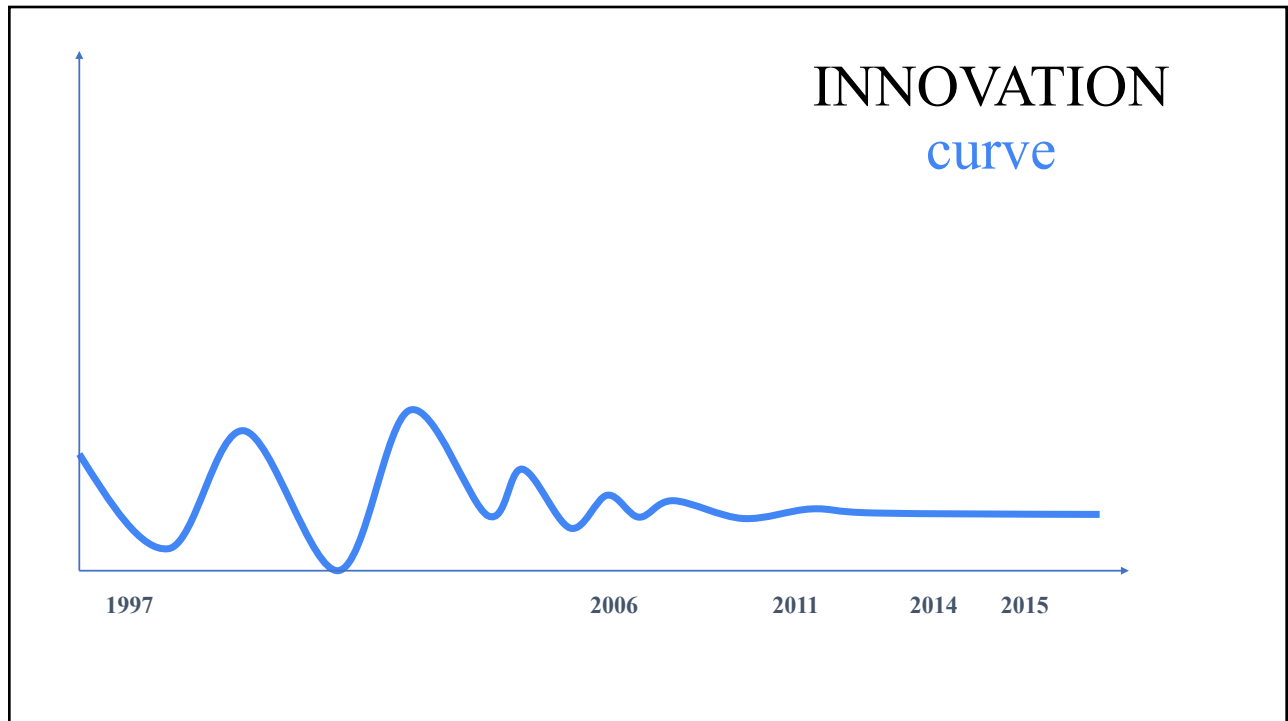


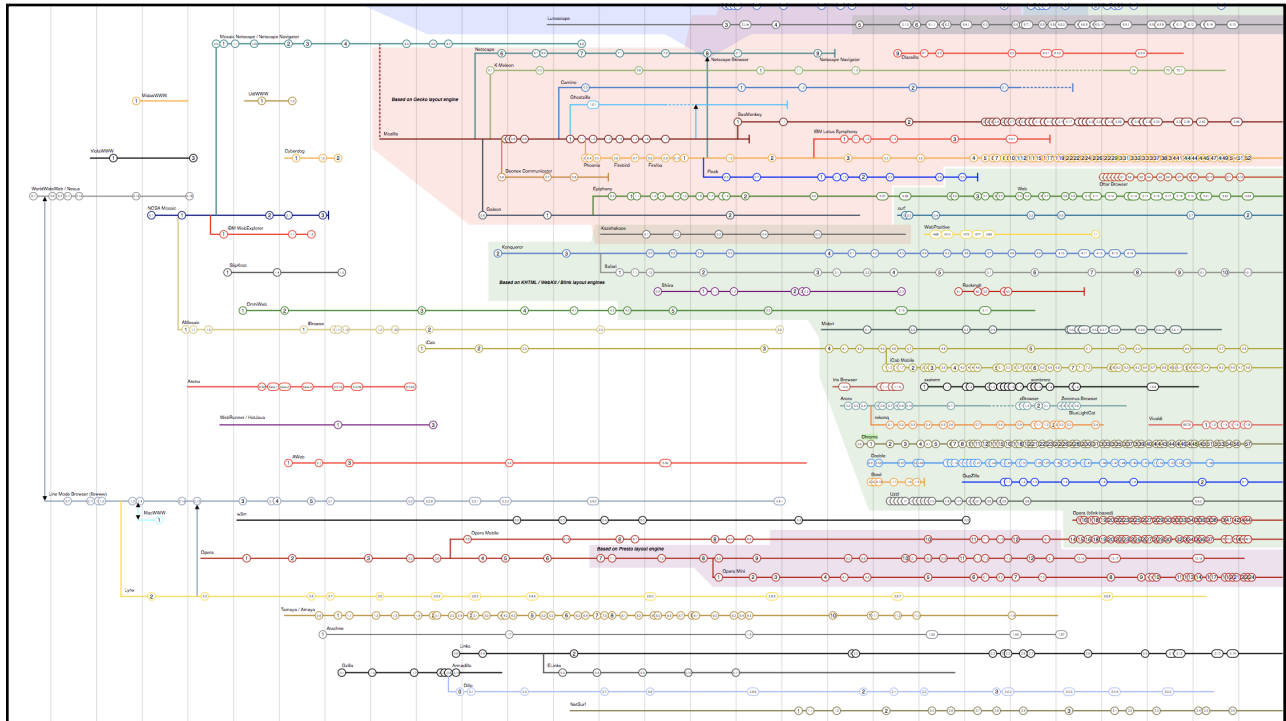
TRICENTIS

http://

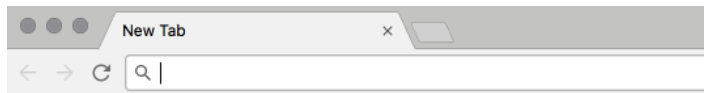
A BRIEF HISTORY OF PROTOCOL LEVEL USERS





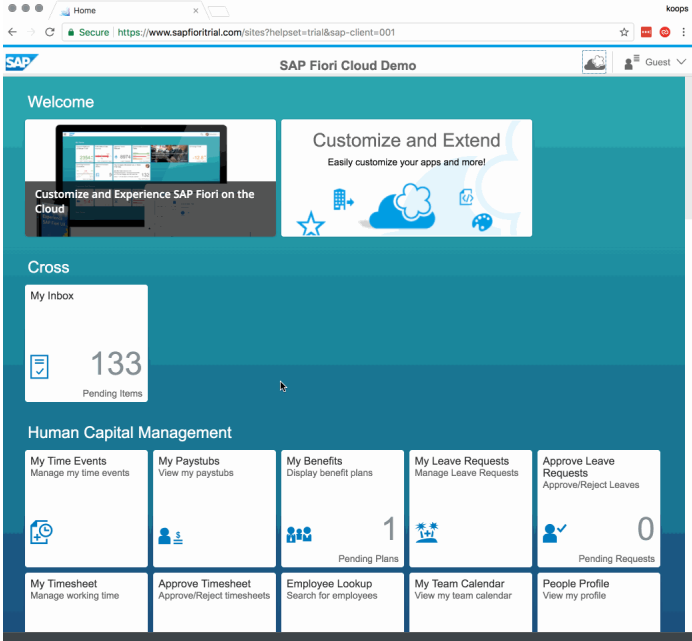


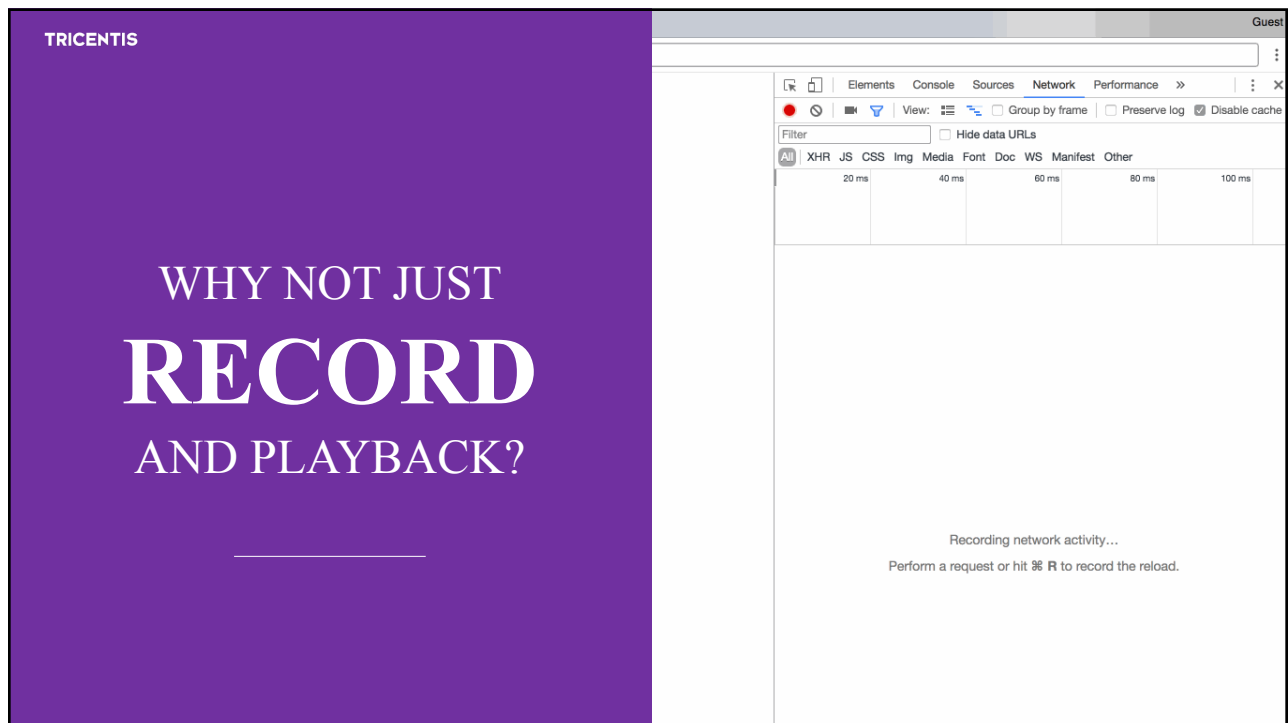
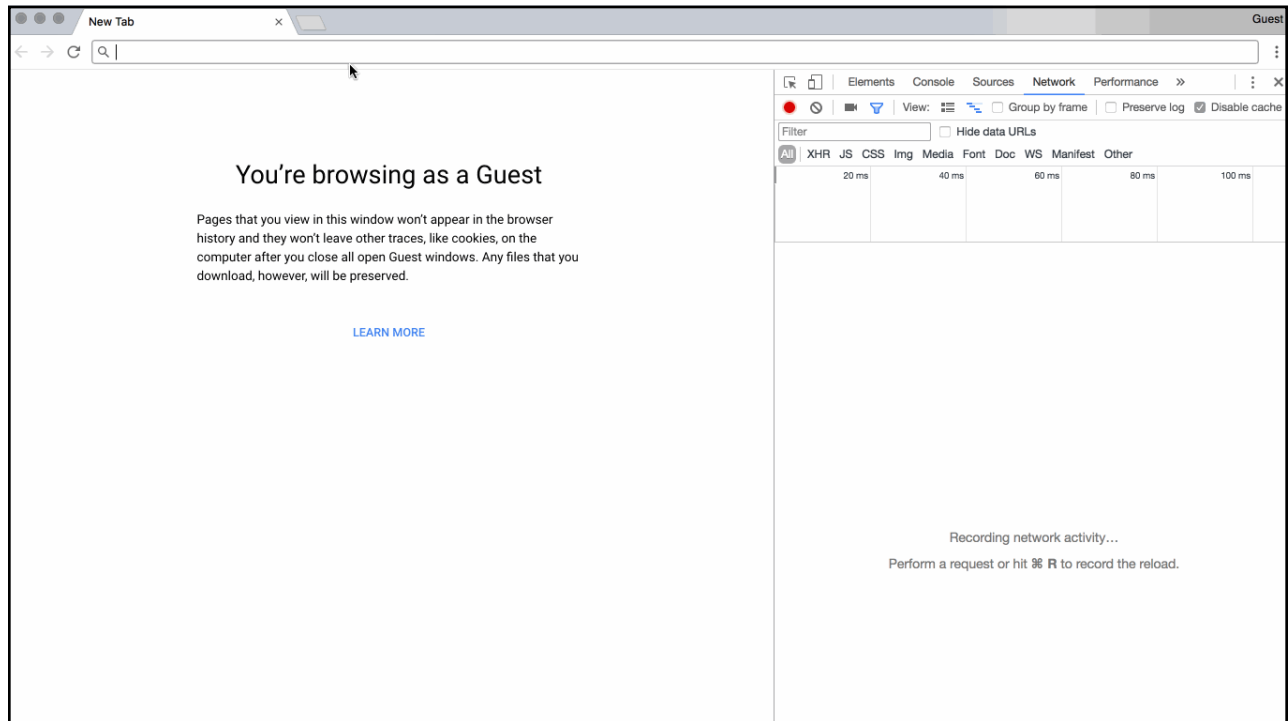
So you want to **visit** amazon.com

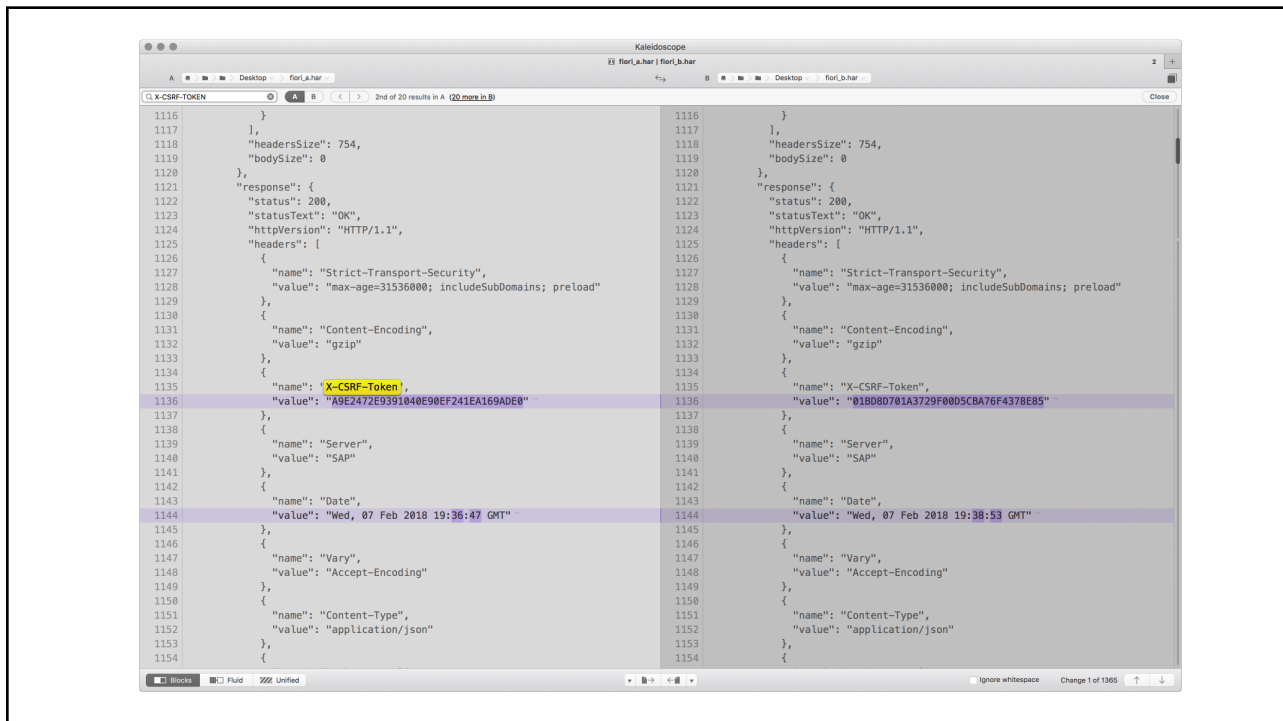
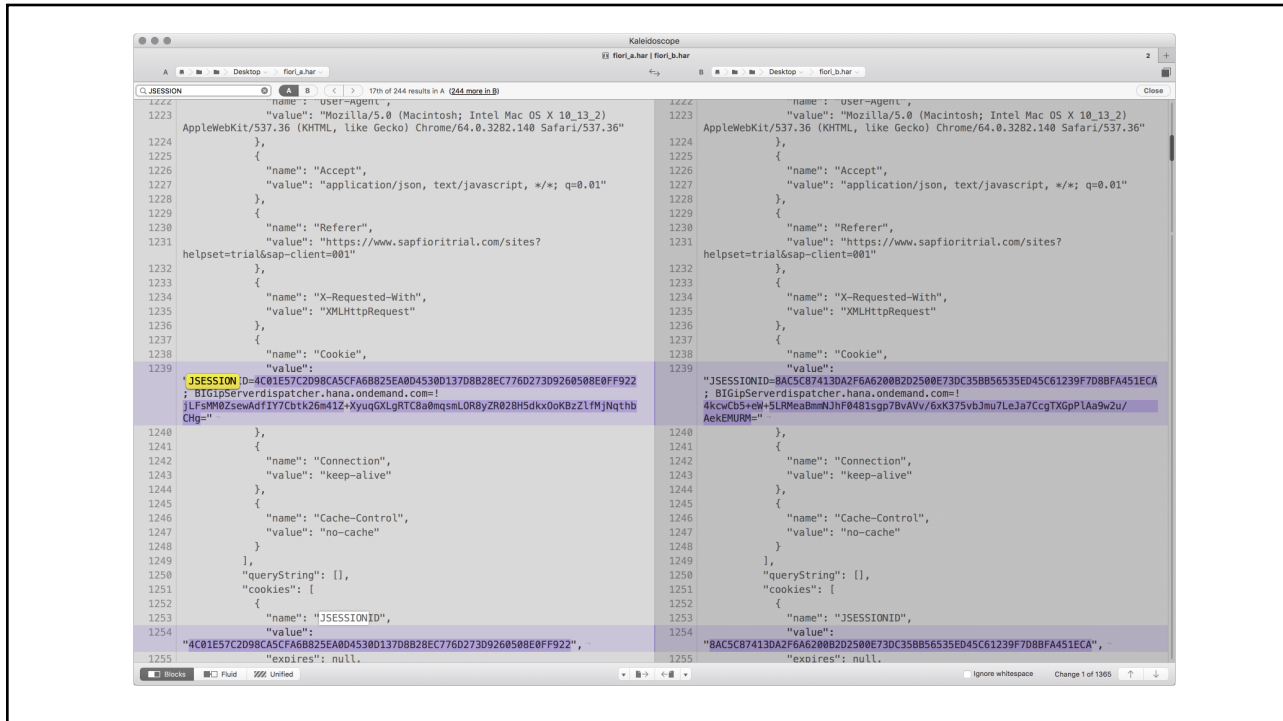


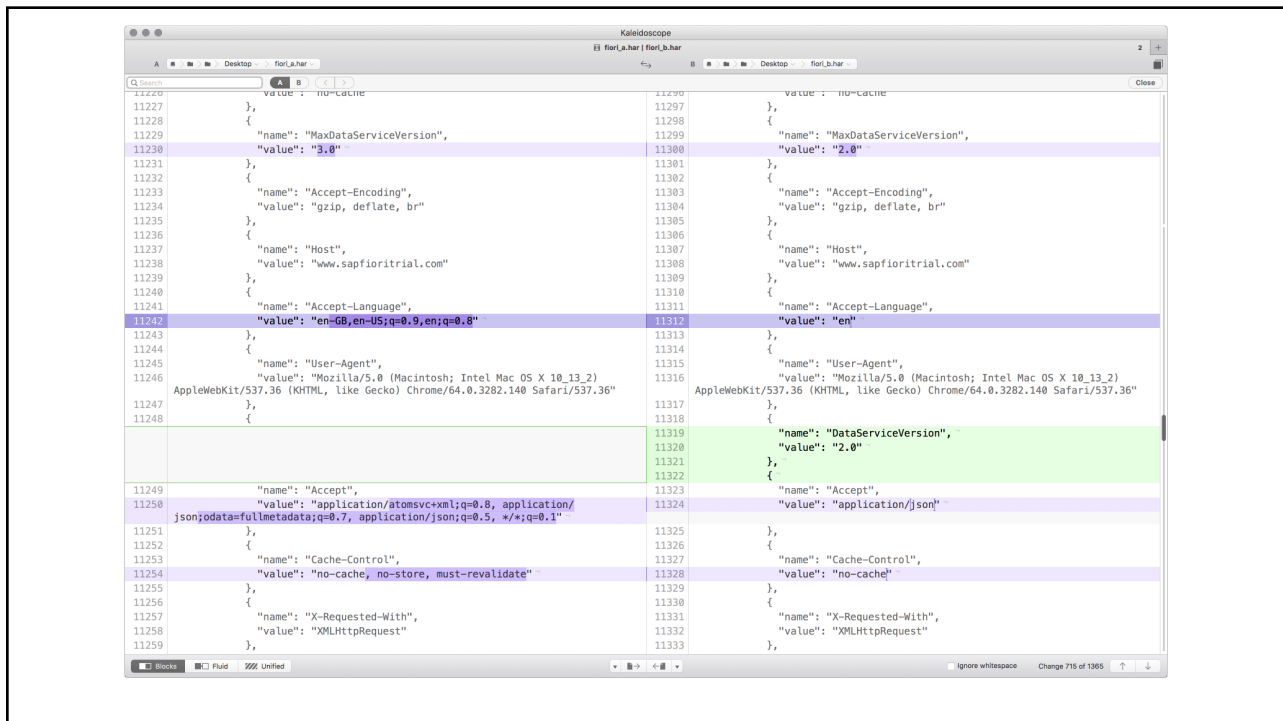
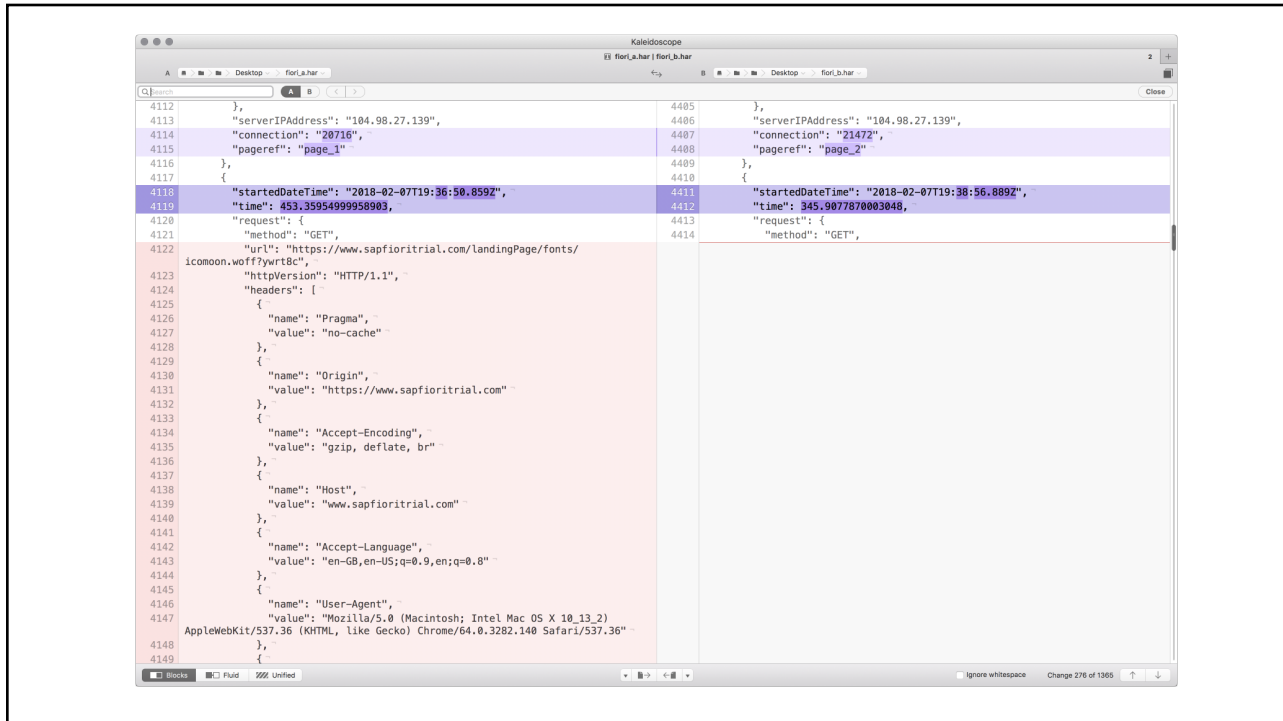
How many **requests** will that take?

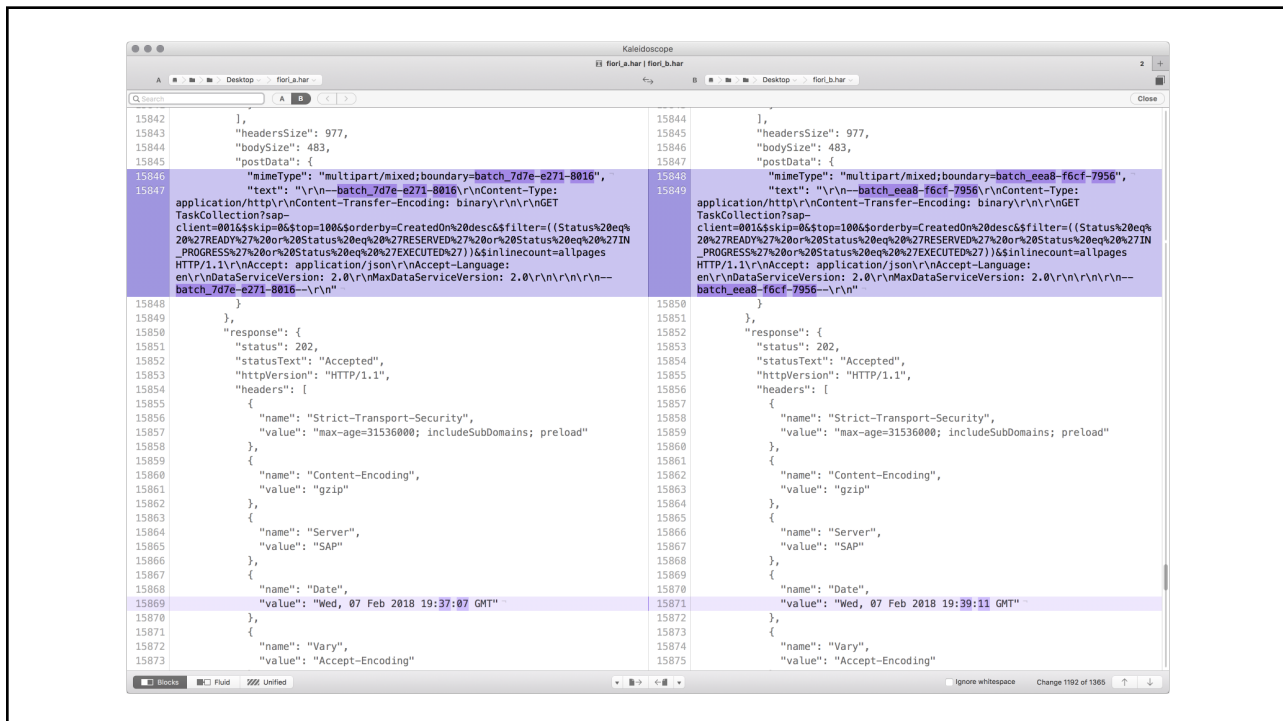
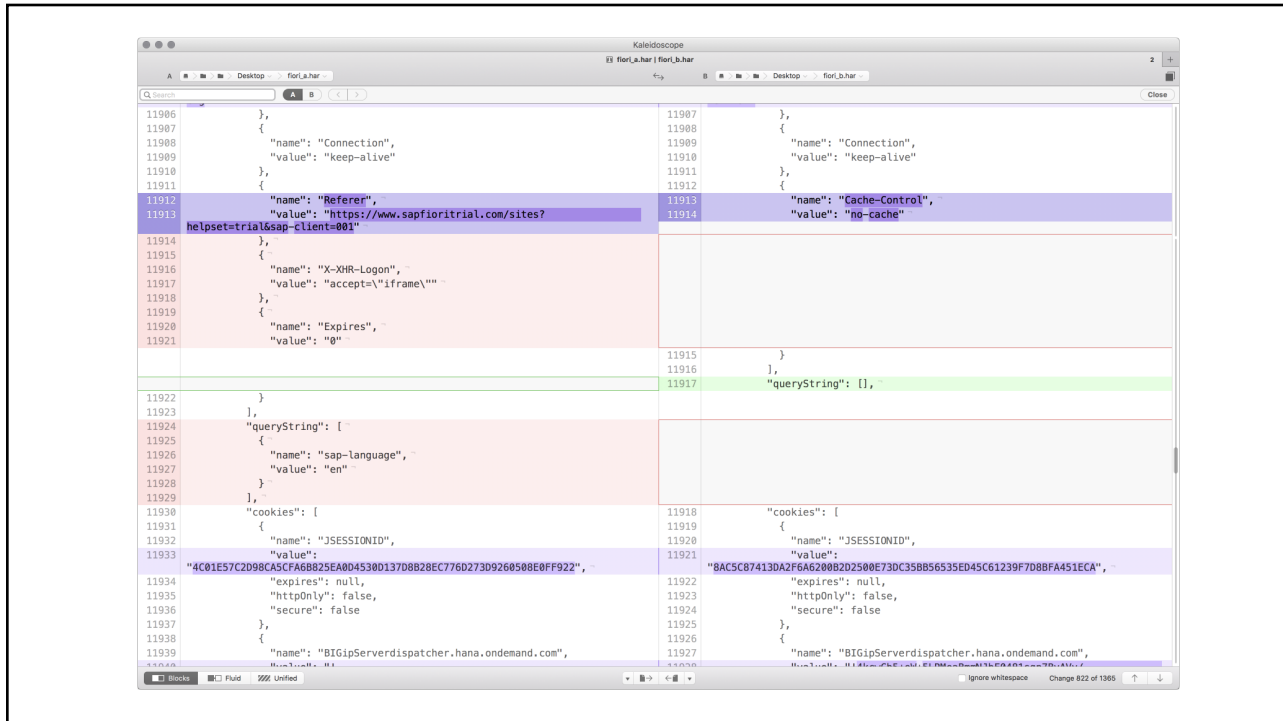
Browser Level	Protocol Level
	
<p>1 Visit</p>	<p>+300 Requests</p>

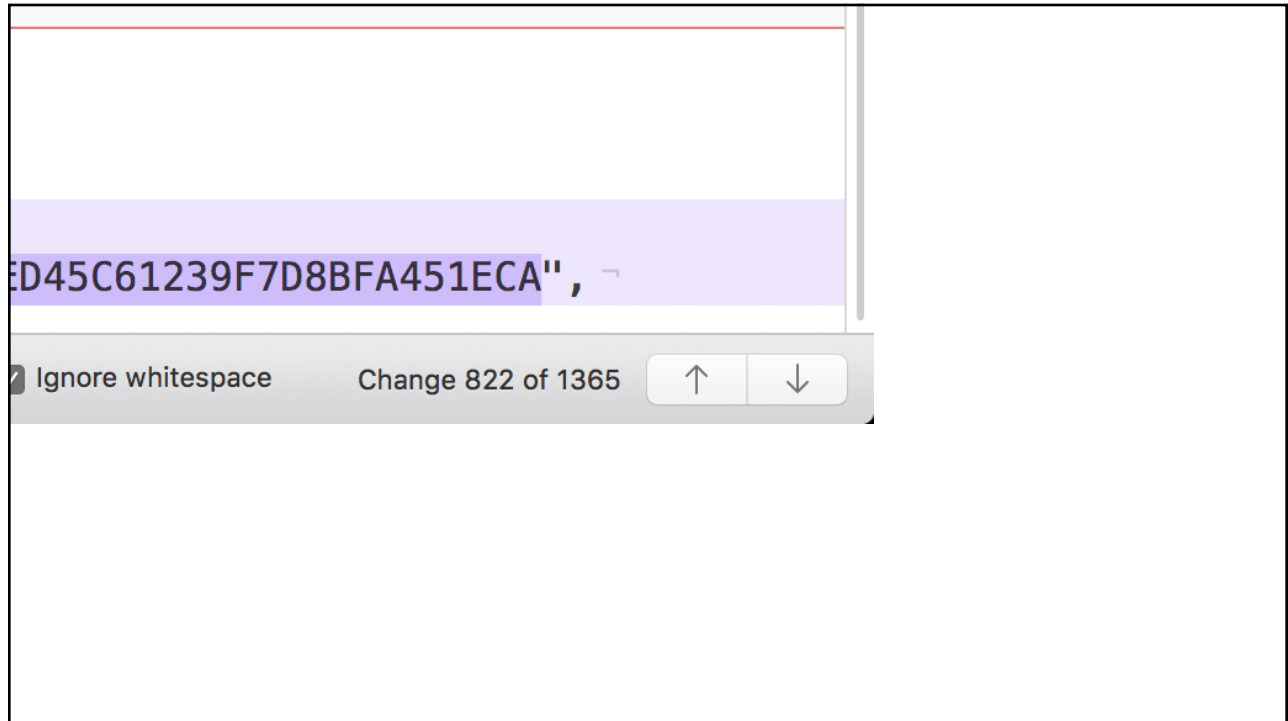
<p>SIMULATING A MODERN WEB APP</p>	
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TRICENTIS

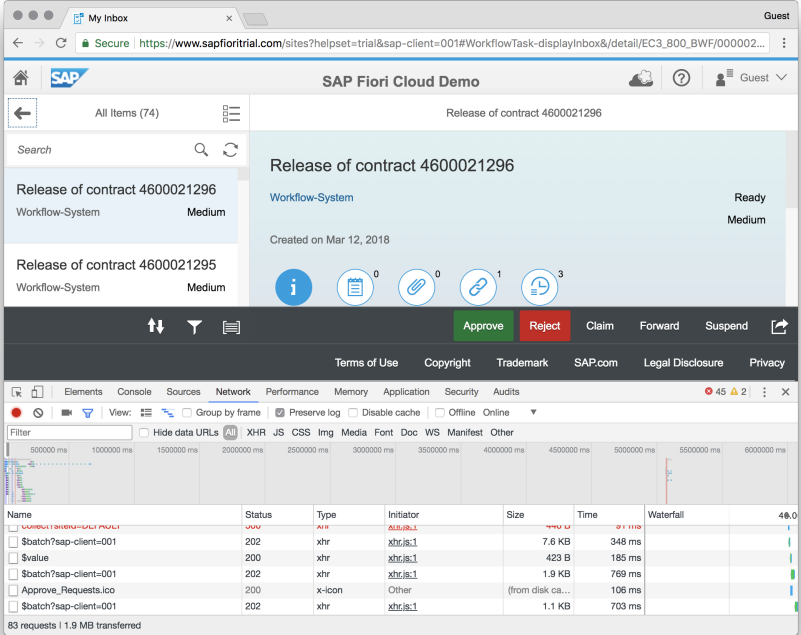


WHERE WE ARE GOING
BROWSER LEVEL USERS

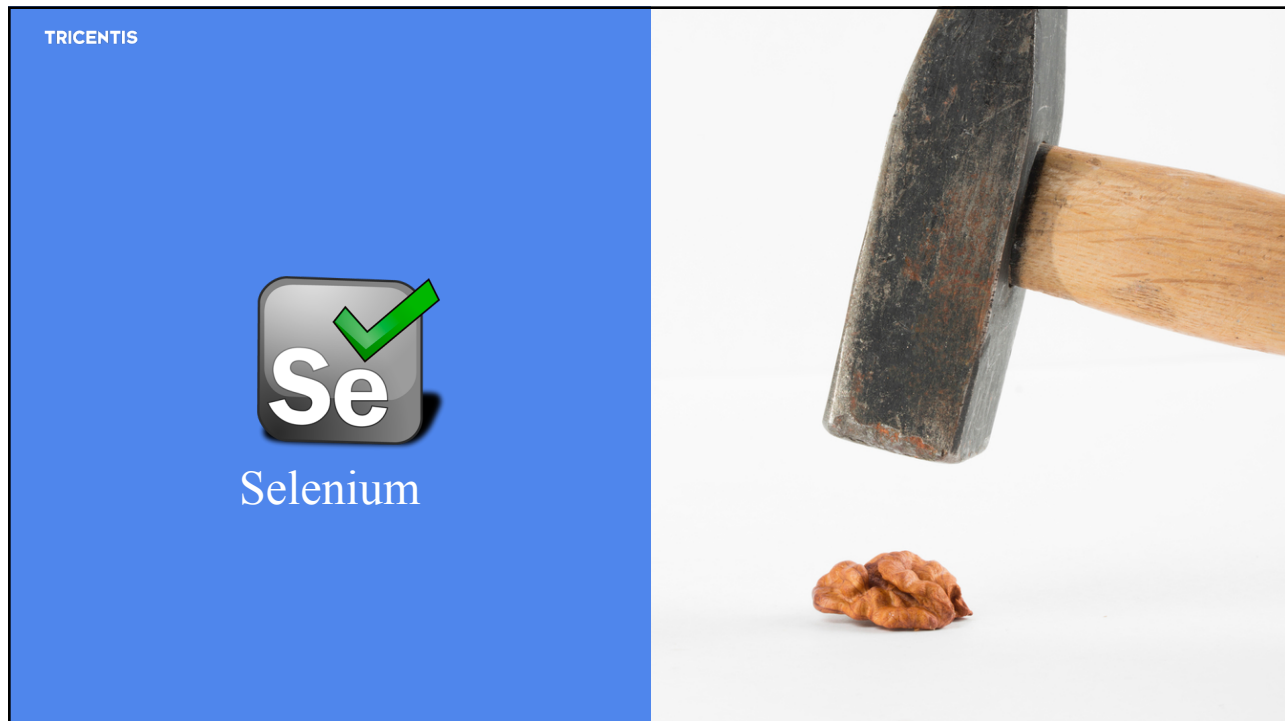
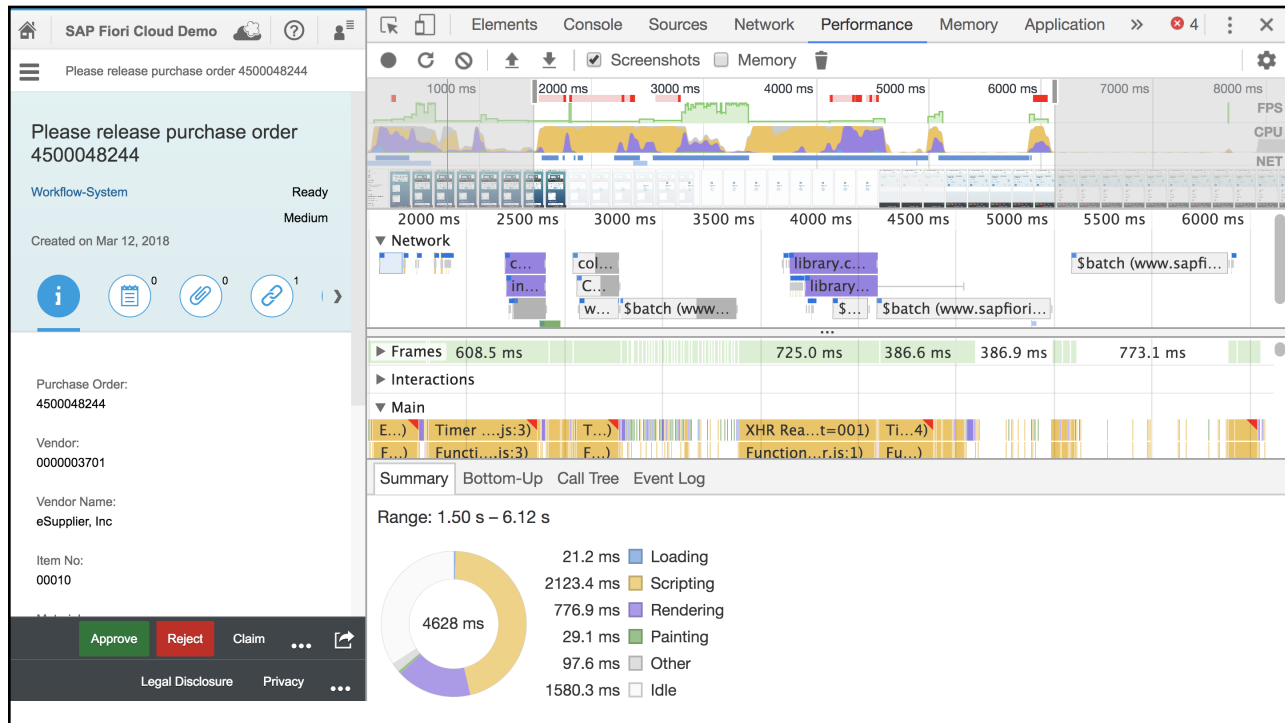
- What works
- What doesn't work
- How to get started

Browser Level


Protocol Level




Name	Status	Type	Initiator	Size	Time	Waterfall
\$batch?sap-client=001	202	xhr	xhr:is:1	7.6 KB	348 ms	
\$value	200	xhr	xhr:is:1	423 B	185 ms	
\$batch?sap-client=001	202	xhr	xhr:is:1	1.9 KB	769 ms	
Approve_Requests.ico	200	x-icon	Other	(from disk ca...)	106 ms	
\$batch?sap-client=001	202	xhr	xhr:is:1	1.1 KB	703 ms	




TRICENTIS




Selenium



TRICENTIS



Selenium





Enjoy the **style** of Selenium

```
1 step('example', async browser => {  
2   await browser.visit('https://www.google.com/ncr')  
3  
4   await browser.type(By.name('q'), 'Browser Level Users')  
5   await browser.findElement(By.name('btnK')).click()  
6  
7   await browser.wait(Until.elementIsVisible('Level Up Your Load Testing'))  
8 })
```

and the **power** of Puppeteer



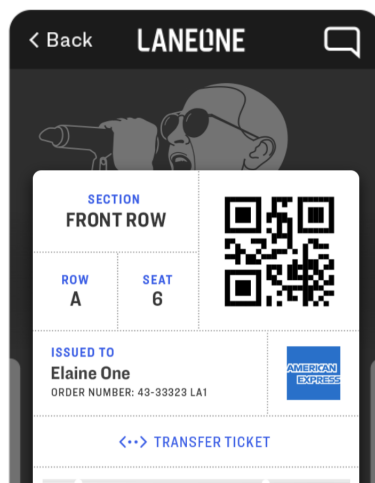
chrome.flood.io


```

1 export default () => {
2   step('Challenge: Start', async browser => {
3     await browser.visit('https://challenge.flood.io/')
4     await browser.click(By.css('input.btn-default'))
5   })
6
7   step('Challenge: Step 2', async browser => {
8     let selectEl = By.id('challenger_age')
9     await browser.wait(Until.elementIsVisible(selectEl))
10    await browser.selectByValue(selectEl, '30')
11    await browser.click(By.css('input[value="Next"]'))
12  })
13
14  step('Challenge: Step 3', async browser => {
15    let orderLabels = await browser.findElements(By.css('table tr td span label'))
16    let orderValues = await Promise.all(orderLabels.map(label => label.text()))
17  })
18 }

```

We **love** how **Flood** lets us quickly and efficiently get about the business of load testing ...

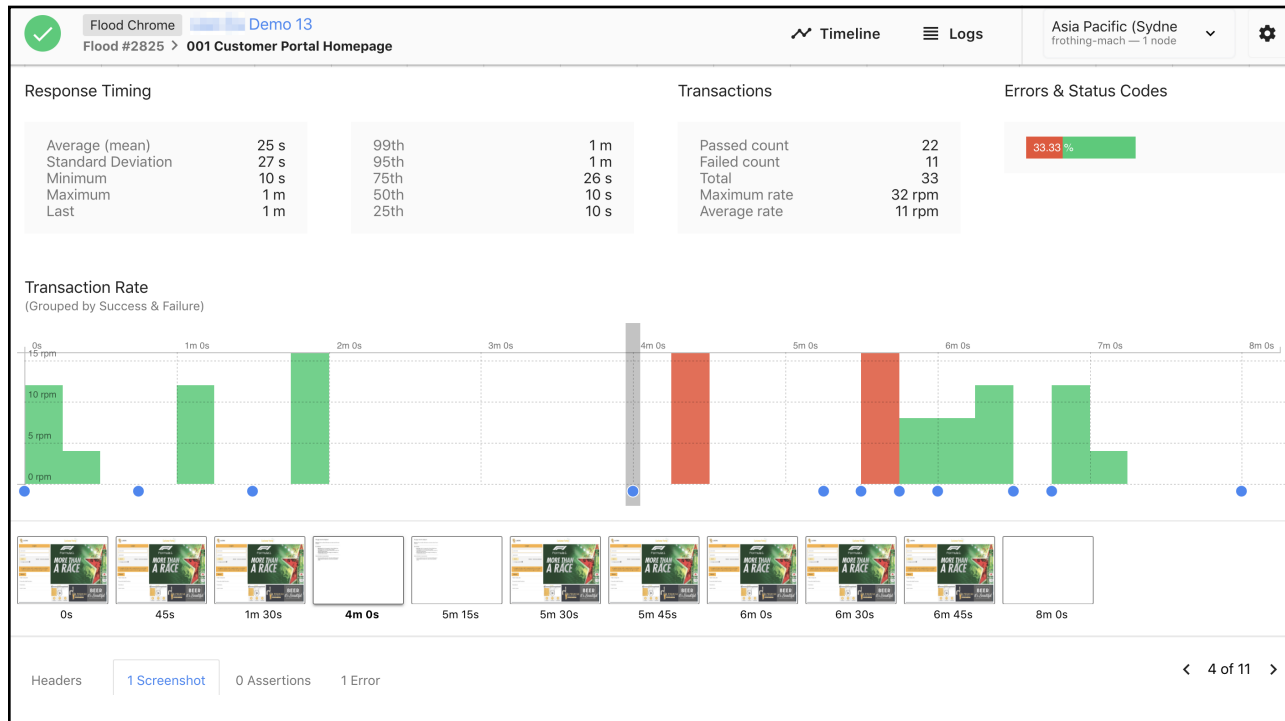



Event ticketing for some of the world's most successful touring acts like the Eagles and Harry Styles means you have to be ready for big traffic spikes and meet the high expectations of customers as well as eminent partners such as American Express and Ticketmaster. Tricentis Flood was exactly what we needed: a cloud-based load testing platform that would let us distribute both protocol-level testing and browser-level testing.

Josh Cronemeyer, CTO of LaneOne



Official partner
of LaneOne



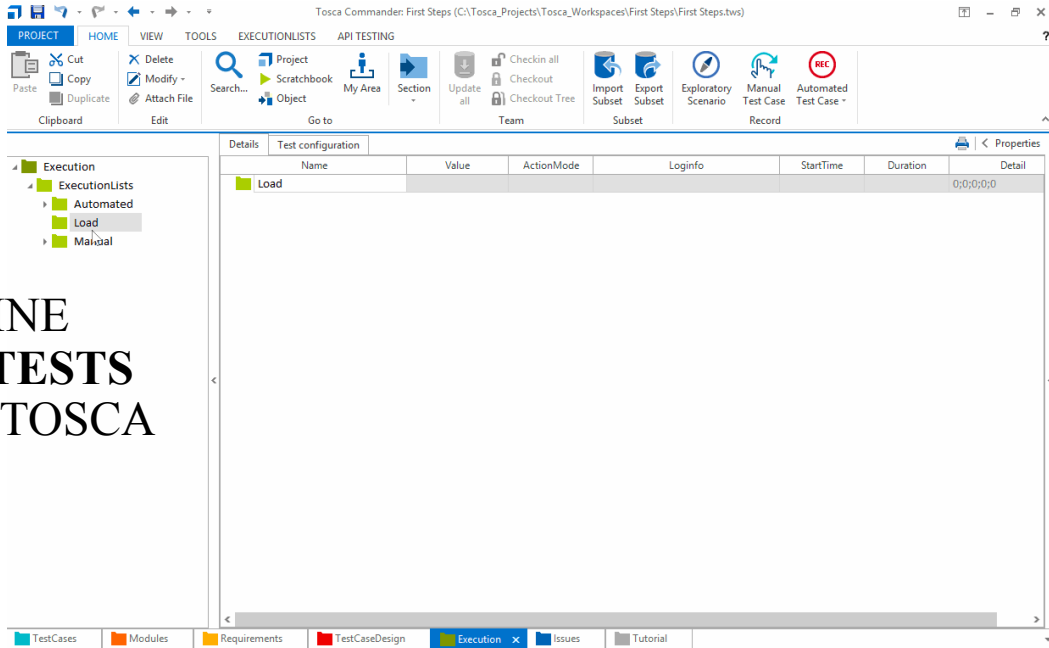


Tosca Flood

Single Test Case Definition

Create a single **API** or **Browser** test case in Tricentis Tosca
Execute it as one, or **many** users with Tosca Flood
Analyze performance over time

**DEFINE
LOAD TESTS
WITHIN TOSCA**



The screenshot shows the Tosca Commander interface. The 'Execution' tree on the left is expanded to show 'Load'. The 'Details' pane on the right displays a table for 'Test configuration' with the following data:

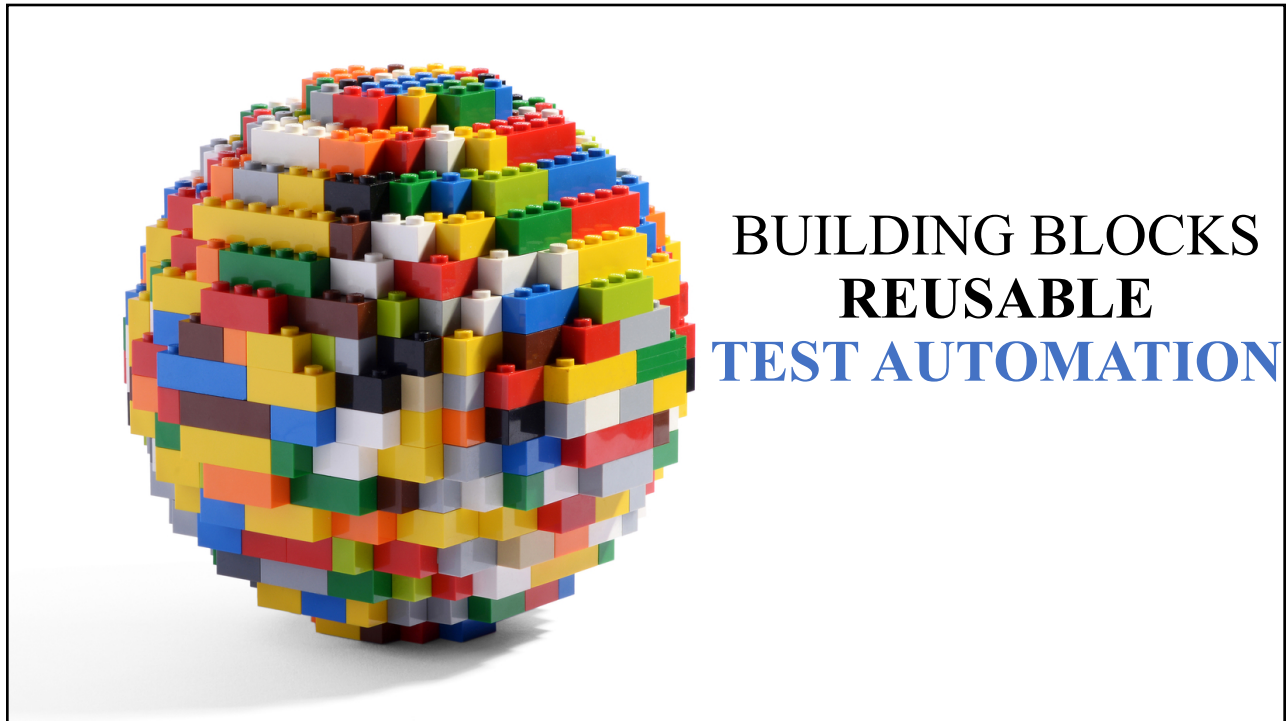
Name	Value	ActionMode	Loginfo	StartTime	Duration	Detail
Load						0;0;0;0

The bottom status bar shows the following tabs: TestCases, Modules, Requirements, TestCaseDesign, Execution (selected), Issues, and Tutorial.

**WHAT DOES TOSCA'S
MODEL BASED
TEST AUTOMATION
GIVE US?**




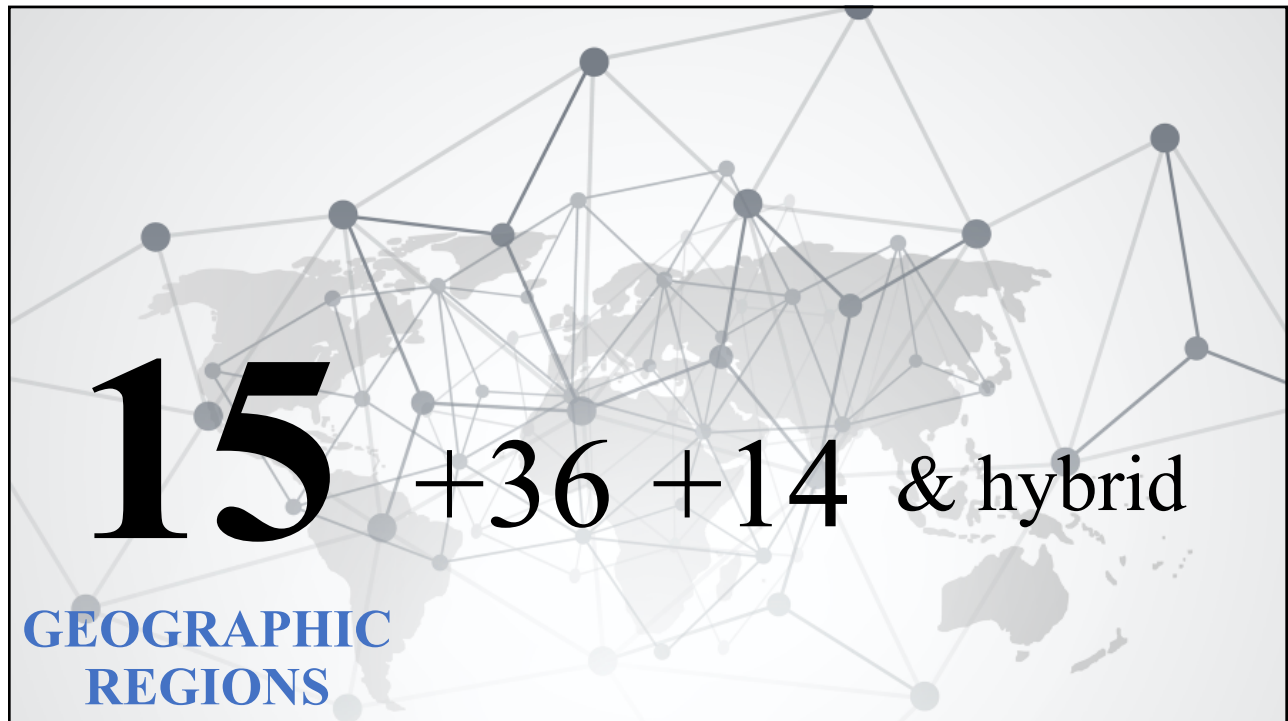
The image shows a close-up of a pile of colorful LEGO bricks. The bricks are in various colors including red, yellow, blue, green, white, and black. They are scattered and overlapping, creating a textured, three-dimensional appearance.



**EASY TO
MAINTAIN
MODULES**

- Modules
 - Standard modules
 - Vehicle Insurance Application
 - Main Menu
 - Send Quote**
 - Price Option
 - Automobile
 - Truck
 - Motorcycle
 - Camper

Details	Properties
Name	Image
	
Send Quote	
E-Mail	
Phone	
Username	
Password	
Confirm ...	
Comments	
« Prev	
« Send »	
Success ...	
OK	
Home	



15 +36 +14 & hybrid

**GEOGRAPHIC
REGIONS**

The image shows a world map with a network of nodes and lines overlaid, representing a global network. The text '15 +36 +14 & hybrid' is prominently displayed in the center, and 'GEOGRAPHIC REGIONS' is written in blue below it.

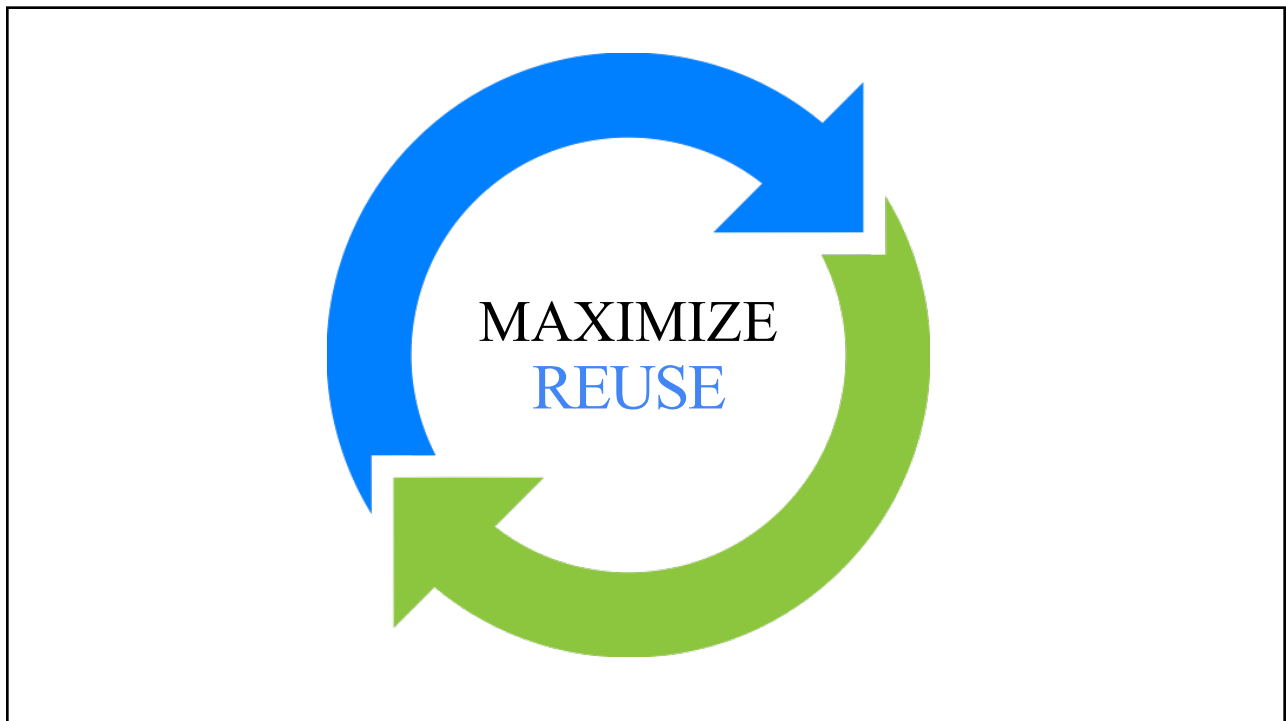
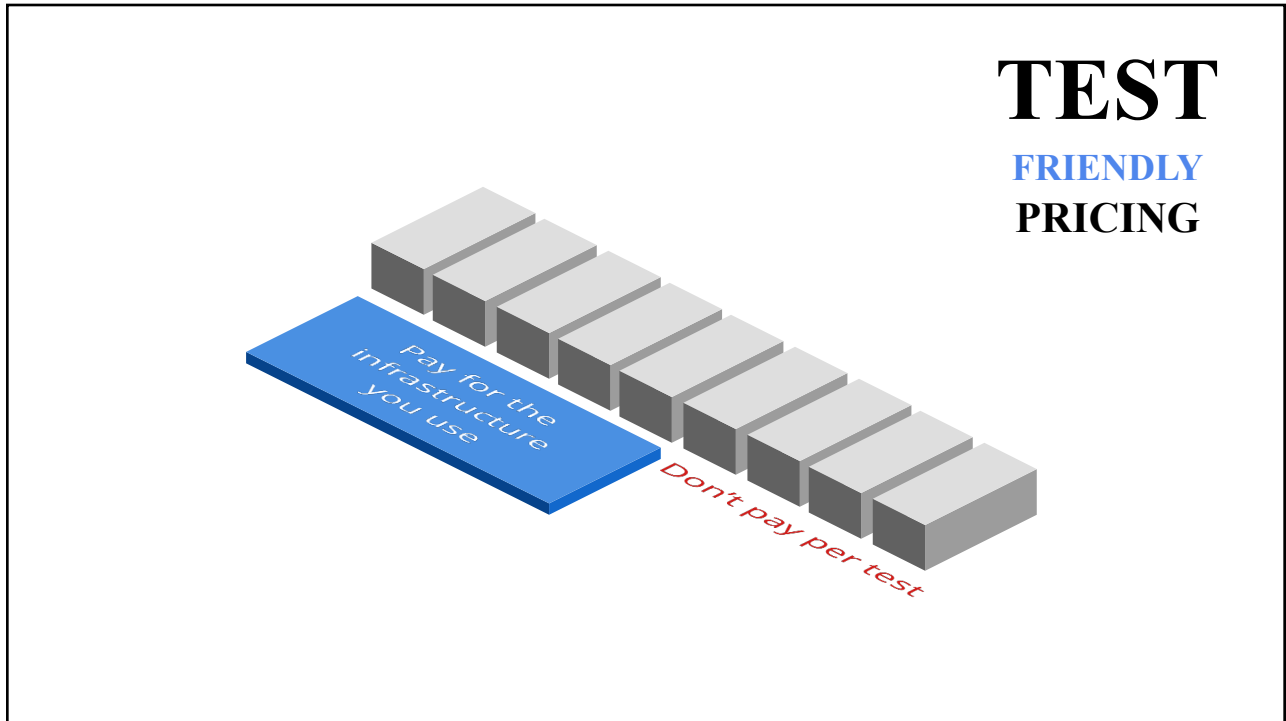
CLOUD ECONOMY OF

SCAL

Pay for what you use

E

The image features a solid blue background with white text. The text reads 'CLOUD ECONOMY OF SCAL' in large, bold, serif font. Below this, in a smaller font, is 'Pay for what you use'. At the bottom, a large, bold, serif letter 'E' is partially visible.





We're not all engineers

And we're not suggesting you need to be



We can all talk about performance

and availability

and reliability

and scalability

THE FUTURE IS BLU

A new simpler approach to Continuous Load Testing

- **Definitions of Load Testing**
 - What you should care about
 - Performance
 - Availability
 - Reliability
 - Scalability
- **Challenges of Protocol Level Users**
 - Scripting complexity
- **Benefits of Browser Level Users**
 - Simulating load for a modern web application
 - Selenium vs Flood Chrome
 - Tosca Flood

Label	Target	Response Time	Requests per Minute	Error Rate
Add item to cart	1000	3,764 ms	1.5k rpm	0%
Remove item from cart	1000	3,175 ms	1.5k rpm	0%
Sign in	1000	3,000 ms	2.5k rpm	0%

flood

by TRICENTIS

Questions?