



CROSS-BROWSER TESTING WITH BROWSERSTACK

So geht Software.

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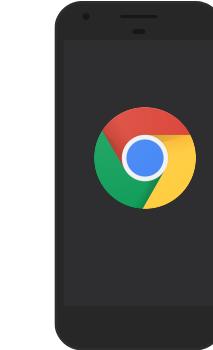
Saxonia Systems

So geht Software.

MOTIVATION

MOTIVATION

Cross-Browser-Testing



CI?

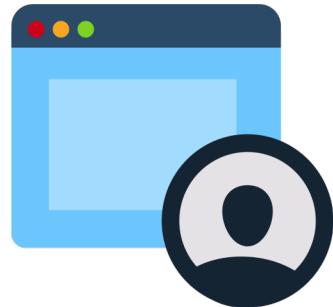


BROWSERSTACK

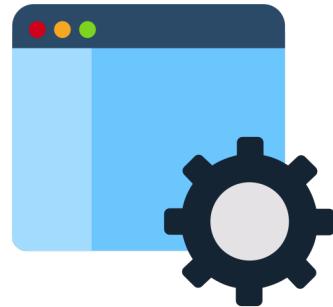
- › Cloud service for cross-device/-browser UI testing
- › Provides testing capabilities on many (real) devices/platforms
- › Handles provisioning and management of test devices for you
- › Provides different platforms, browsers, versions, etc. on demand

BROWSERSTACK

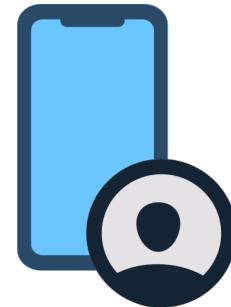
Products



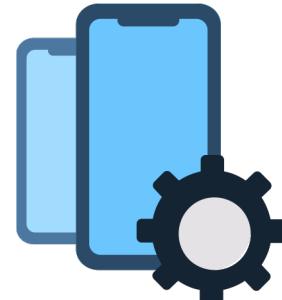
Live



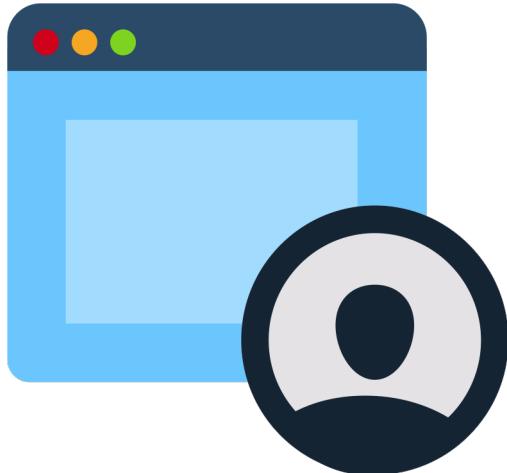
Automate



App Live



App Automate



- › Interactive testing on devices in the browser
- › Access to local resources via Chrome Plugin
- › Built-in Dev Tools
- › No setup or devices needed
- › Automated screenshot generation
- › Geolocation simulation

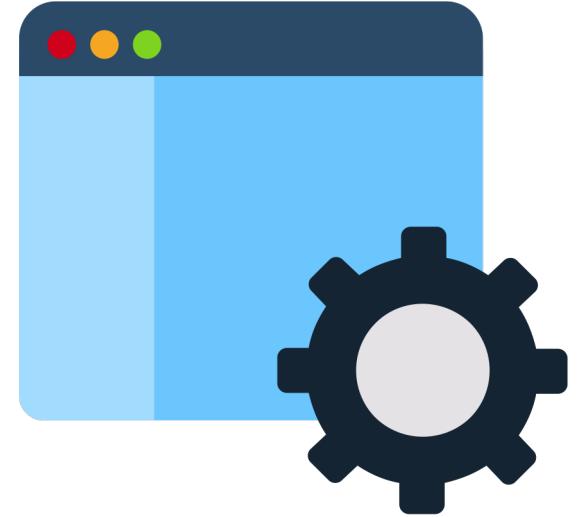
Demo



BROWSERSTACK

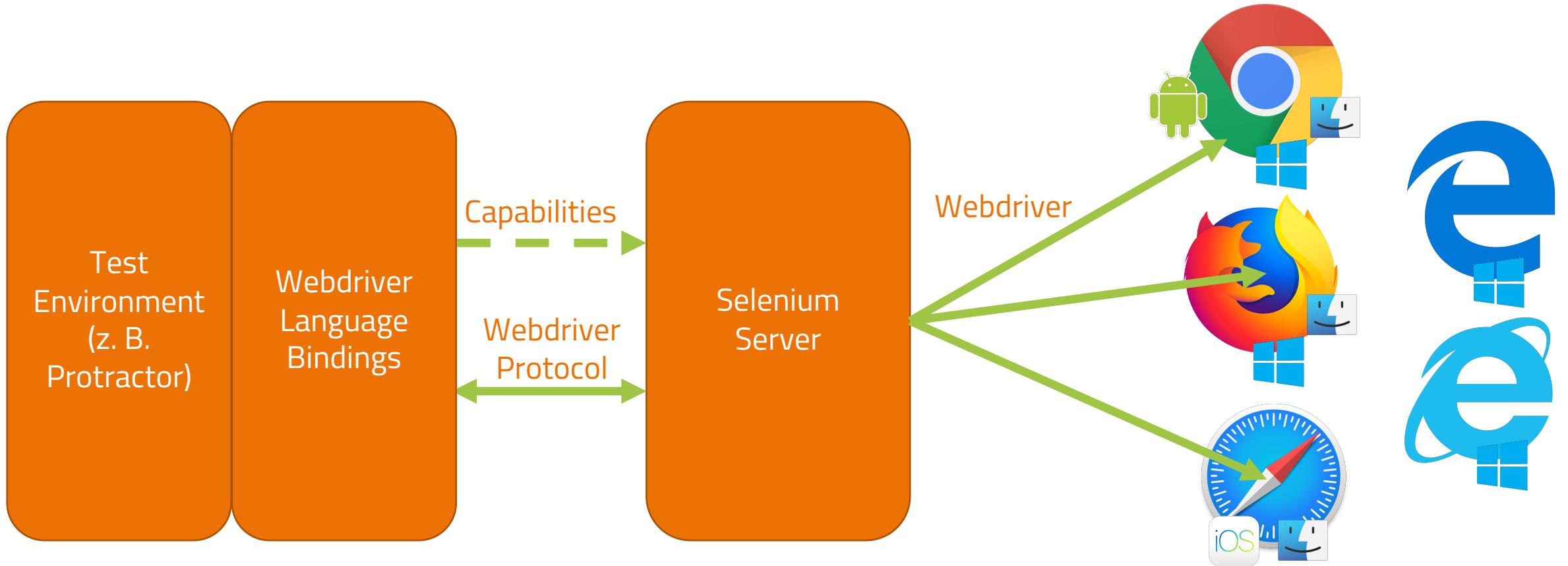
Products - Automate

- › Remote Selenium testing
- › Devices remote → Test execution can be done headless
 - › Access to local resources via Browserstack Local
 - › Parallelizable tests
 - › Screenshots, videos & logs
 - › Geolocation simulation



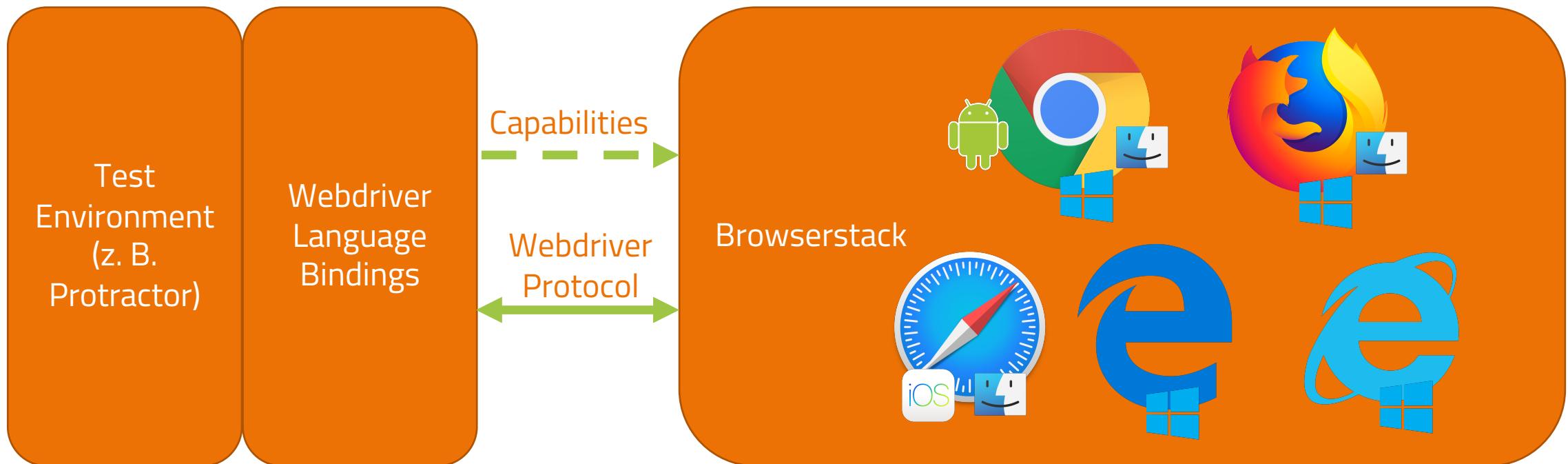
BROWSERSTACK

Connecting to Browserstack



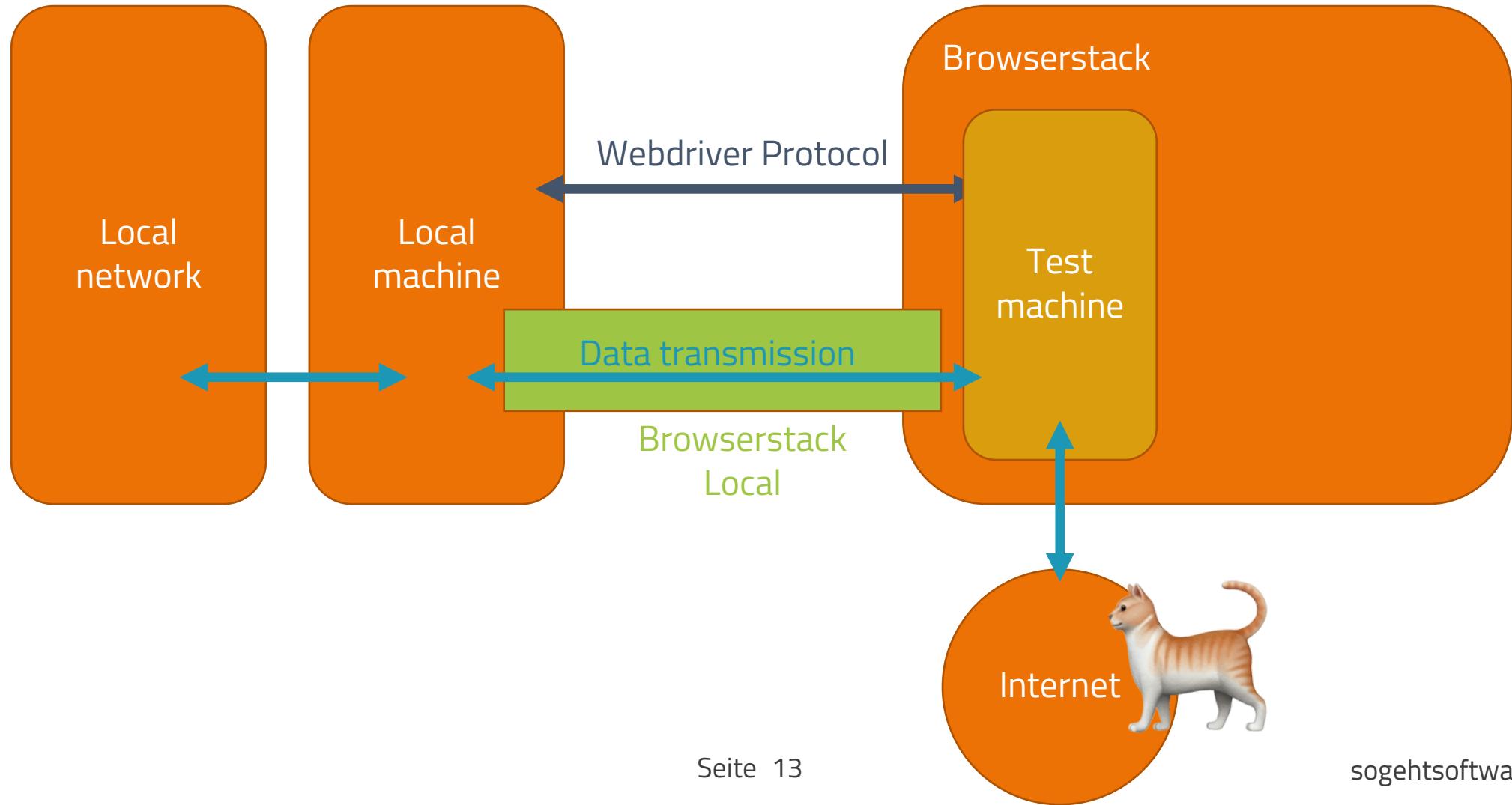
BROWSERSTACK

Connecting to Browserstack



BROWSERSTACK & PROTRACTOR

Browserstack Local



BROWSERSTACK & PROTRACTOR

BROWSERSTACK & PROTRACTOR

```
1 exports.config = {
2   specs: [
3     './src/**/*.{e2e-spec}.ts'
4   ],
5   'seleniumAddress': 'http://hub-cloud.browserstack.com/wd/hub',
6   'capabilities': {
7     'browserstack.user': process.env.BROWSERSTACK_USERNAME,
8     'browserstack.key': process.env.BROWSERSTACK_ACCESS_KEY,
9     'os': 'Windows',
10    'os_version': '10',
11    'browserName': 'Chrome',
12    'browser_version': '62.0',
13    'resolution': '1024x768',
14    'browserstack.local': true,
15  },
16  baseUrl: 'http://bs-local.com:4000/',
17  directConnect: false,
18  maxSessions: 1,
19  beforeLaunch() {
20    return new Promise((resolve, reject) => {
21      console.log("Connecting local");
22      exports.bs_local = new browserstack.Local();
23      exports.bs_local.start({ 'key': process.env.BROWSERSTACK_ACCESS_KEY }, function (error) {
24        if (error) return reject(error);
25        console.log('Connected. Now testing...');

26        resolve();
27      });
28    });
29  });
30},
31};
```

BROWSERSTACK & PROTRACTOR

Demo



BROWSERSTACK PRICING & ENTERPRISE

BROWSERSTACK PRICING & ENTERPRISE

Pricing

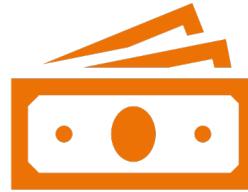
<https://www.browserstack.com/pricing>



BROWSERSTACK PRICING & ENTERPRISE

Enterprise Model

- › SSO
- › Teams and Access Control
- › Analytics
- › IP Whitelisting



 Parallel executions

 Users

EXPERIENCES & TYPICAL ISSUES

EXPERIENCES & TYPICAL ISSUES

- › Test execution with Webdriver is sometimes instable – less instable with Browserstack?
- › Longer test duration on Browserstack – but parallelizable
- › No versioning of Browserstack Local
- › Pricing is pretty high and inflexible – even/especially for enterprise
- › Support is pretty good

VALUE OF BROWSERSTACK

VALUE OF BROWSERSTACK

- › No need to purchase, maintain and update a test infrastructure
 - › → Big variety on demand
 - › → up-to-date devices and OS
 - › → cheaper (device prices, maintenance, etc.)
- › Tests can be parallelized → faster builds, more efficient in development
- › Quick and easy manual testing
- › Can be used from local computers, from build servers, from the cloud, ...

WHERE DO WE USE BROWSERSTACK?

WHERE DO WE USE BROWSERSTACK?

Carl Zeiss Meditec AG – EQ Workplace

- › Software solution for planning, executing and refining eye surgeries
- › High requirements for documentation and quality assurance
- › Test automation is an essential part to keep the development agile
- › Browserstack is used to ensure functionality of the Web frontends on all devices/browsers

