

State of Mobile Web

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25th of October 2014



Sponsors

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PLATINUM



GOLD



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Partner Communities



Wellness Partners



Media Partners



Partner Conferences



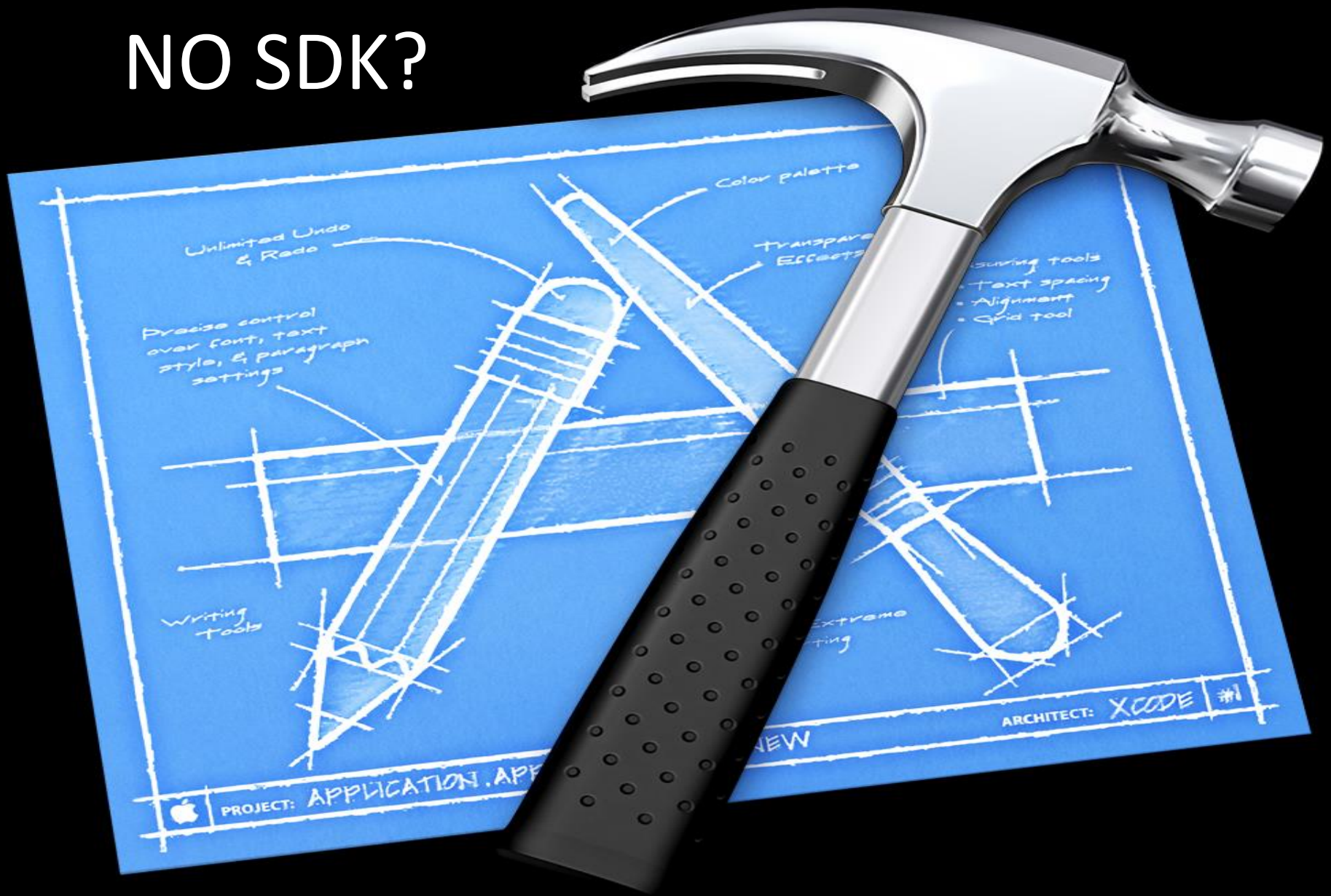
Going Mobile



Building for Mobile



NO SDK?



Firefox WebIDE: Readability

Readability

css/

- connect.css
- index.css
- share.css

icons/

- 128.png
- 256.png

js/

- connect.js
- index.js
- oauth.js

```
1 body {
2   background-color: #990000;
3   color: #FDFDFD;
4   text-align: center;
5   font-family: "Sentinel SSm A";
6 }
7
8 h1 {
9   margin: 60px 0 100px;
10 }
11
12 h1 > * {
13   display: block;
14 }
15
16 h1 > small {
17   font-size: 2rem;
18   font-weight: normal;
19 }
```

Inspector

body

button#loginButton

DOCTYPE html>
<html>
<head></head>
<body>
<h1></h1>
<button id="loginButton">
 Log In
</button>
</body>
</html>

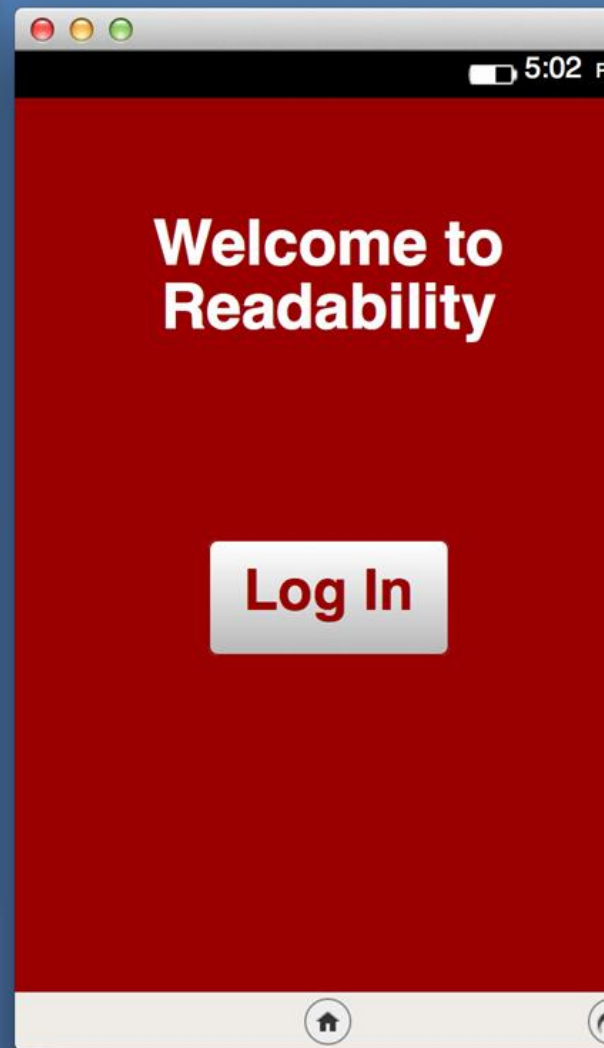
Rules

Computed

Box Model

123x59 static

0 1 14 93x32 14 1 0





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Zombies everywhere.



Children's Apps

Games, education, creative expression, and more—these apps are ideal for kids.



Getting Around



NearMap



zMaps



MapLink



The Guardian
The Guardian

★★★★★

Free



Get Creative



PhotoFunia

Free



Paint

Free



Guitar-Effects

Free



FireSketch

Free



Canvas

Free



Instant Butt...

Free



Great Games



Hextris

Free



Monkeyfast

Free



White T

Free



Nappa adve...

Free



Quadz

Free



Box It

Free

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Dailymotion
Dailymotion

★★★★★

Free





A stylized world map in a lighter shade of blue, centered on the Atlantic Ocean, serving as a background for the slide.

● Current



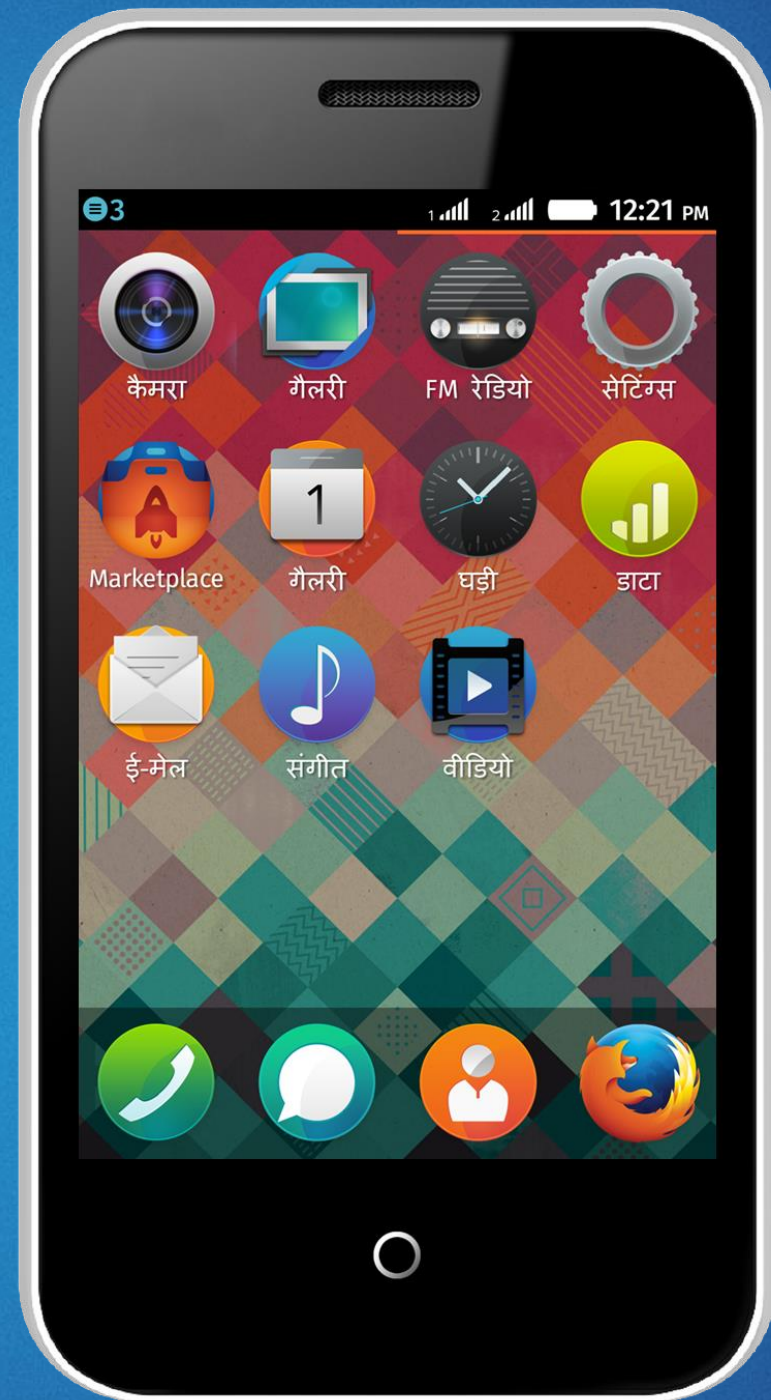
Firefox OS

Some Facts

- 12 smartphones
- 13 operators
- 24 countries

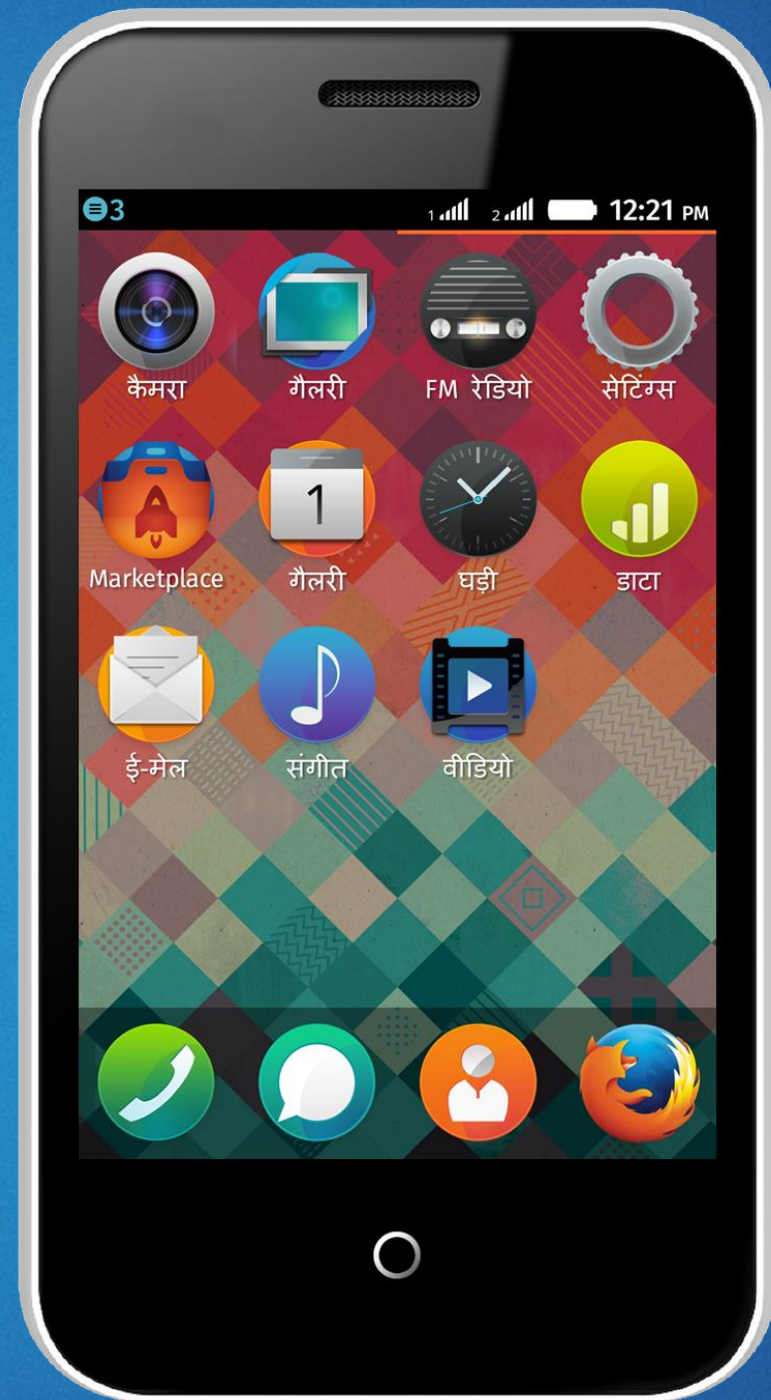
India

- Intex Cloud FX
 - 2 MP Rear camera
 - Spd 6821 1.0GHz
 - RAM-128MB
 - ROM-256MB
 - Display-3.5" HVGA
 - Dual SIM
 - 1250mAh (Li-ion)
 - Bluetooth/Wi-Fi
- Price?



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- Price 25 Euro



Gaia:
User interface with
HTML5-based Web content

Gecko:
Web runtime with
open Web APIs

Gonk:
Open Linux kernel
and drivers

Removed:
Single-vendor native
API layer between
engine and kernel



29 March 2012



Page **Discussion**

Read **View source** View history

Search

Log in Request account

Booting to the Web

Mozilla believes that the web can displace proprietary, single-vendor stacks for application development. To make open web technologies a better basis for future applications on mobile and desktop alike, we need to keep pushing the envelope of the web to include --- and in places exceed --- the capabilities of the competing stacks in question.

We also need a hill to take, in order to scope and focus our efforts. Recently we saw the [pdf.js](#) project expose small gaps that needed filling in order for "HTML5" to be a superset of PDF. We want to take a bigger step now, and find the gaps that keep web developers from being able to build apps that are --- in every way --- the equals of native apps built for the iPhone, Android, and WP7.

To that end, we started a project we're calling Firefox OS, formerly [Boot to Gecko](#) (B2G), to pursue the goal of building a complete, standalone operating system for the open web. It requires work in a number of areas.

- **New web APIs:** build prototype APIs for exposing device and OS capabilities to content (Telephony, SMS, Camera, USB, Bluetooth, NFC, etc.)
- **Privilege model:** making sure that these new capabilities are safely exposed to pages and applications
- **Booting:** prototype a low-level substrate for mobile devices (phones and tablets)
- **Applications:** choose and port or build apps to prove out and prioritize the power of the system.

We will do this work in the open, we will release the [source](#) in real-time, we will take all successful additions to an appropriate standards group, and we will track changes that come out of that process. We aren't trying to have these native-grade apps just run on Firefox, we're trying to have them run on the web.

This page was last modified on 21 July 2012, at 14:12.

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https://wiki.mozilla.org/Booting_to_the_Web



**HELP
WANTED**

Apps, Apps, Apps!

```
1 {  
2   "name": "My App",  
3   "description": "My elevator pitch goes here",  
4   "launch_path": "/index.html",  
5   "icons": {  
6     "512": "/img/icon-512.png",  
7     "128": "/img/icon-128.png"  
8   },  
9   "developer": {  
10    "name": "Your name or organization",  
11    "url": "http://your-homepage-here.org"  
12  },  
13  "default_locale": "en"  
14 }
```

<https://developer.mozilla.org/en-US/Apps/Build/Manifest>

Web APIs

API	Description	Standardization	Availability			See also
WebTelephony	Allow placing and answering phone calls as well as build in-call UI.	W3C ED (SysApps)	D	A	B	bug 674726, Security
Vibration API	Control device vibration for things like haptic feedback in games. Not intended to solve things like vibration for notification.	W3C CR (Device APIs)	D	A	B	bug 679966, Security
WebSMS	Send/receive SMS messages as well as manage messages stored on device.	W3C ED (SysApps)	D	A	B	bug 674725, Security
Idle API	Get notifications when user is idle.	Needs plan	D	A	B	bug 715041, Security
Screen Orientation	Get notification when screen orientation changes as well as control which screen orientation a page/app wants.	W3C WD (WebApps)	D	A	B	bug 720794 bug 740188 bug 673922, Security
	Set system-wide configurations					bug

<https://wiki.mozilla.org/WebAPI>

Web APIs (hosted apps)

- Vibration API
- Screen Orientation API
- Geolocation API
- Mouse Lock API
- Open WebApps
- Network Information API
- Battery Status API
- Alarm API
- Push Notifications
- WebFM API / FMRadio
- WebPayment
- IndexedDB
- Ambient light sensor
- Proximity sensor
- Notification

Battery API

```
1 var battery = navigator.battery || navigator.mozBattery || navigator.webkitBattery;
2
3 function updateBatteryStatus() {
4     console.log("Battery status: " + battery.level * 100 + " %");
5
6     if (battery.charging) {
7         console.log("Battery is charging");
8     }
9 }
10
11 battery.addEventListener("chargingchange", updateBatteryStatus);
12 battery.addEventListener("levelchange", updateBatteryStatus);
13 updateBatteryStatus();
```

Web APIs (privileged apps)

- Device Storage API
- Browser API
- TCP Socket API
- Contacts API
- systemXHR

Contacts API

```
1 // first way: setting the properties directly
2 var person = new mozContact();
3 person.givenName = ["John"];
4 person.familyName = ["Doe"];
5 person.nickname = ["No kidding"];
6
7 // second way: using a value object
8 var contactData = {
9     givenName: ["John"],
10    familyName: ["Doe"],
11    nickname: ["No kidding"]
12 };
13
14 var person = new mozContact(contactData); // Firefox OS 1.3 takes a parameter to initialize the object
15 if ("init" in person) {
16     // Firefox OS 1.2 and below uses a "init" method to initialize the object
17     person.init(contactData);
18 }
19
20 // save the new contact
21 var saving = navigator.mozContacts.save(person);
22
23 saving.onsuccess = function() {
24     console.log('new contact saved');
25     // This update the person as it is stored
26     // It includes its internal unique ID
27     // Note that saving.result is null here
28 };
29
30 saving.onerror = function(err) {
31     console.error(err);
32 };
```

Web APIs (certified apps)

- WebTelephony
- WebSMS
- Idle API
- Settings API
- Power Management API
- Mobile Connection API
- WiFi Information API
- WebBluetooth
- Permissions API
- Network Stats API
- Camera API
- Time/Clock API
- Attention screen
- Voicemail

Web Activities to the rescue!

- configure
- costcontrol
- dial
- open
- pick
- record
- save-bookmark
- share
- view
- new, f.e type:
“websms/sms” or
“webcontacts/co
ntact”


Sending a picture to your app

```
1 var activity = new MozActivity({
2   // Ask for the "pick" activity
3   name: "pick",
4
5   // Provide the data required by the filters of the activity
6   data: {
7     type: "image/jpeg"
8   }
9 });
10
11 activity.onsuccess = function() {
12   var picture = this.result;
13   console.log("A picture has been retrieved");
14 };
15
16 activity.onerror = function() {
17   console.log(this.error);
18 };
```


They work on Android!




Write some code!



ExploreGistBlogHelp

AlexLakatos



Mozilla-B2G

Filters ▾

gaia JavaScript ★ 1,772 🍴 1,997
Bug 1087038. Gaia is a HTML5-based Phone UI for the Boot 2 Gecko Project. NOTE:
For details of what branches are used for what releases, see
Updated 5 hours ago

marionette-socket-host Python ★ 0 🍴 2
Host for marionette-js-runner
Updated 11 hours ago

firefoxos-loop-client JavaScript ★ 13 🍴 29
Firefox OS client for the Loop service
Updated 15 hours ago

People 46 ➤


<https://github.com/mozilla-b2g>

Test, test, test!



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Tasks

[Exploratory Testing for Mozillians](#)

Exploratory Manual UI Testing for Mozillians

[Firefox OS Exploratory Testing](#)

Tell us how it feels to use Firefox OS in your daily life.

[Firefox OS Integrated Browser](#)

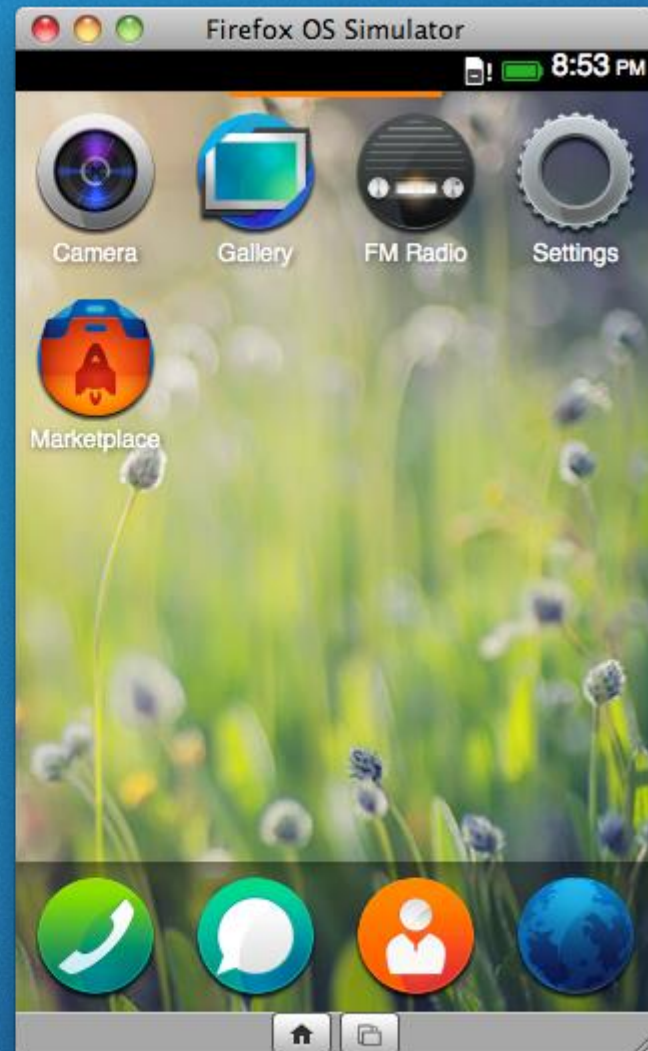
Help us test the complete integration of the browser into Firefox OS

[Firefox OS Rocketbar](#)

Help us test the complete integration of search into Firefox OS

<https://oneanddone.mozilla.org/>

Simulate!



COD^ECAMP



FEEDBACK

Thanks

Alex Lakatos
Xoomworks Tech Lead
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Slides:
[https://alexlakatos.github.io/
slides/codecamp/slides.pdf](https://alexlakatos.github.io/slides/codecamp/slides.pdf)

COD≡CAMP



25th of October 2014