

Firefox OS



Firefox OS

Firefox OS

- By **mozilla**
- Nonprofit
- Initial release: 2013
- Codename: Boot to Gecko(B2G)
- For Smartphone, Tablet, Smart TV
- 28 countries, 14 operators

Why Another OS

- Real open source: Community based
- Open standards: HTML5, CSS3, Javascript
- Native API vs Web API
- Entire UI is a web app
- Different target: Low cost smartphones

Overview

- Phones
- Architecture
- Apps

Flame

170\$

- 5 MP, 2 MP Camera
- Qualcomm Snapdragon
- 1.2 GHz Dual-core
- 1GB -> 256MB (Adjustable)



ZTE Open

Spain

69€ with 30€ prepaid

- 3 MP Camera
- 1 GHz CPU
- 256 MB RAM



Intex Cloud FX

India
~33\$

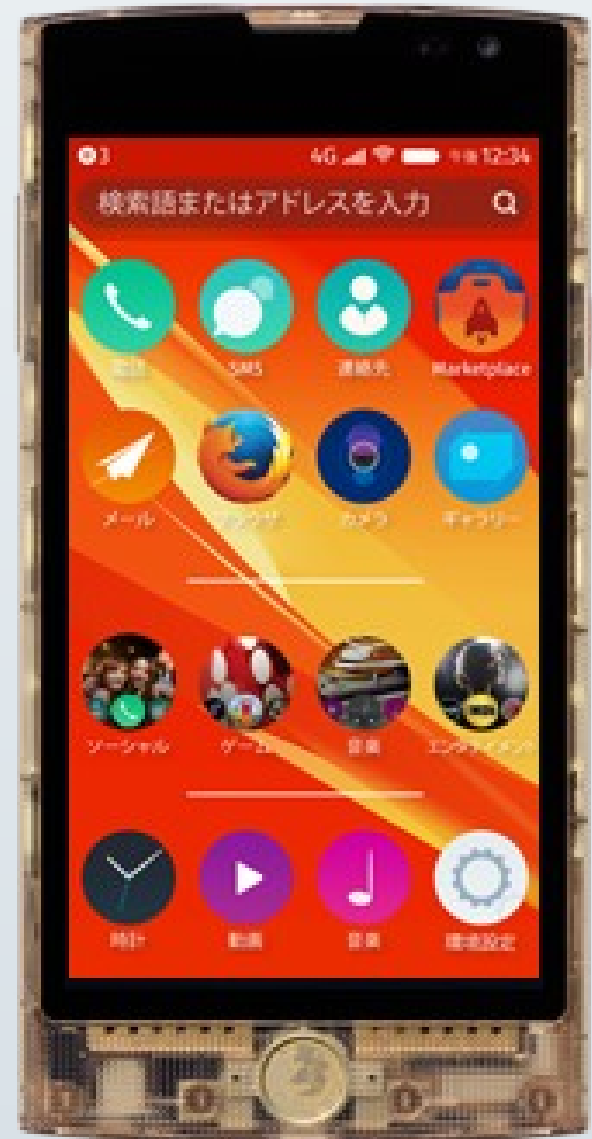
- 2 MP Camera
- 1 GHz CPU
- 128 MB RAM



LG Fx0

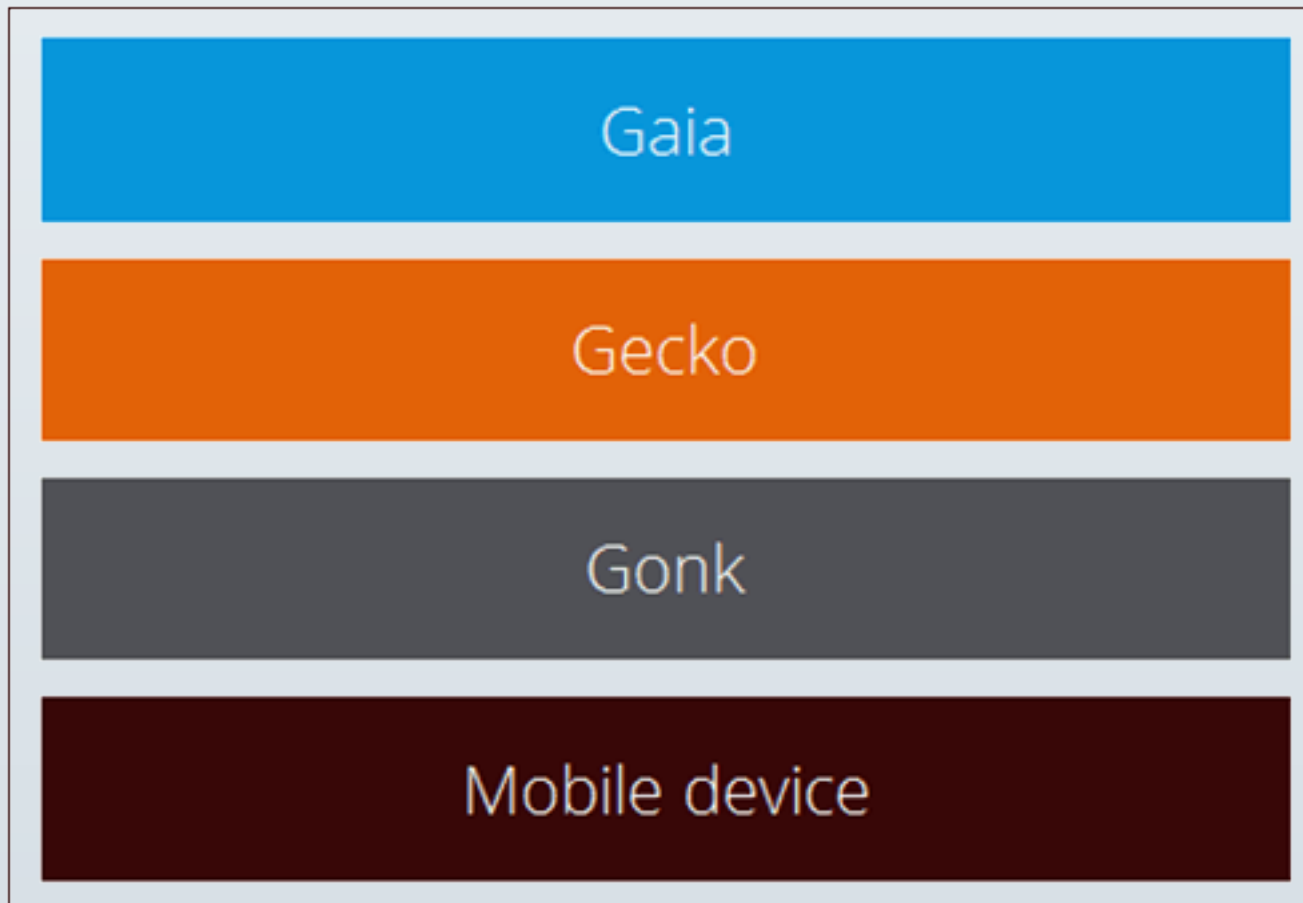
Japan
420\$

- 8 MP, 2.1 MP Camera
- Qualcomm Snapdragon 400
- 1.2 GHz Quad-core
- 1.5 GB RAM





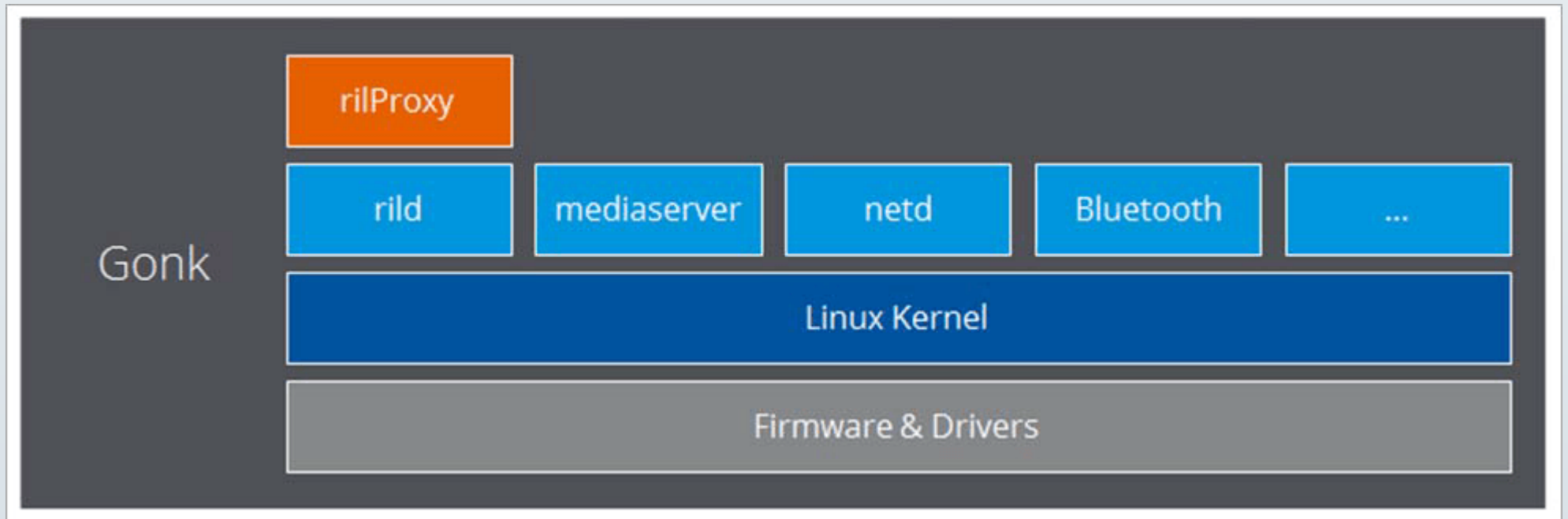
Architecture



Gonk

- A very simple GNU/Linux distro
- A porting target for Gecko
- Linux kernel + HAL
- Some drivers and firmware from AOSP:
Camera, GPS
- Gives Gecko more access than any other OS

Gonk

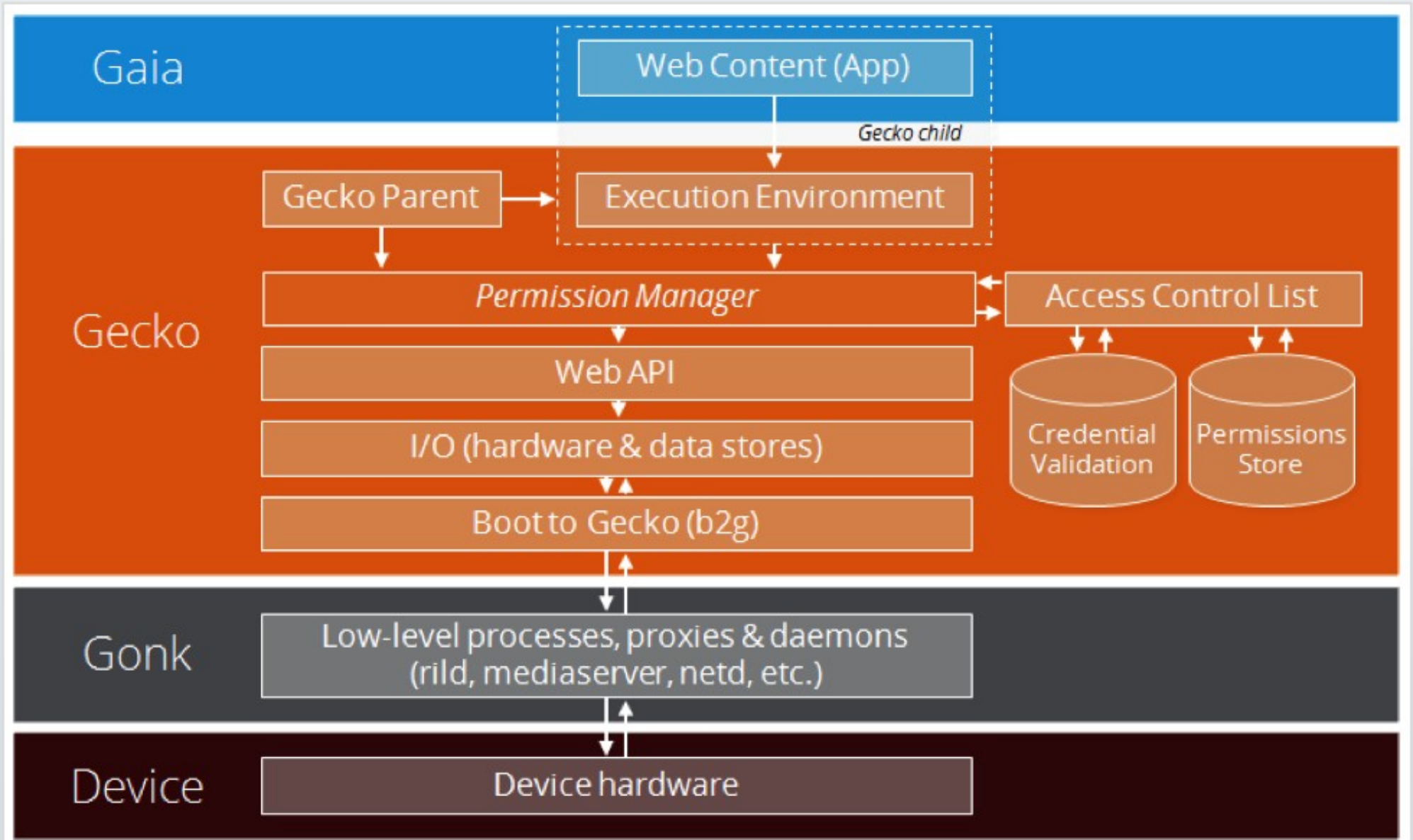


ril: Radio Interface Layer

Gecko

- HTML5 parsing and rendering engine
- Javascript and CSS
- Connects Hardware to HTML
- b2g Process run by Gonk

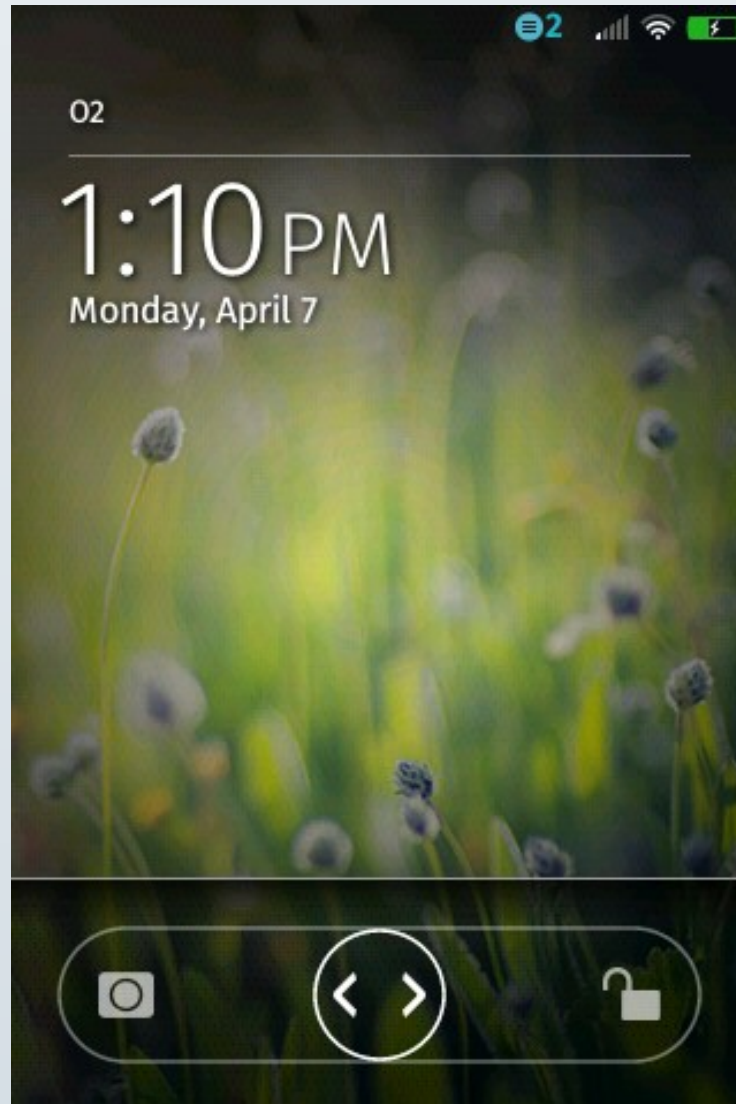
Gecko



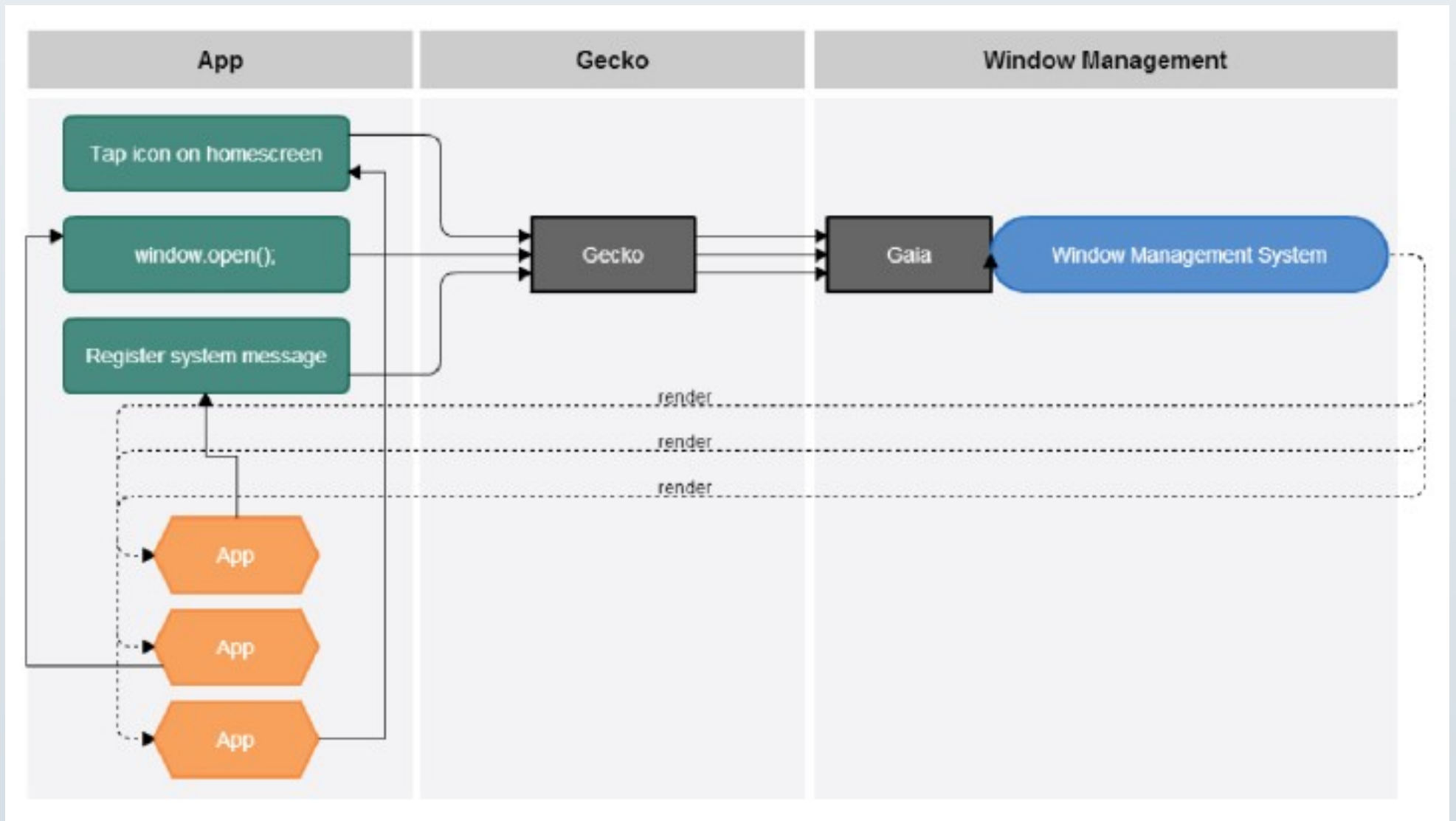
Gaia

- Anything visible in Firefox OS
- All in HTML5, CSS, Javascript
- Window management: App life cycle
- Keyboard
- Settings, Dialer, Camera, FM radio, etc...
- Runs on Gecko, uses WebAPI

Gaia



Gaia



Application

- All in HTML5 technologies
- Screen size?
- Types:
 - Hosted Normal website
 - Packaged A zip file
- Security:
 - Plain
 - Privileged
 - Certified

Application

App/

main.js

index.html

manifest.webapp

Icons/

Manifest

```
{  
  "name": "Hello",  
  "description": "A Hello World app",  
  "launch_path": "/index.html",  
  "icons": {  
    "16": "/icons/icon16x16.png",  
    "48": "/icons/icon48x48.png",  
    "60": "/icons/icon60x60.png",  
    "128": "/icons/icon128x128.png"  
  },  
  "type": "privileged",  
  "permissions": {}  
}
```

Web API

- WebTelephony
- Vibration API
- WebSMS
- Power Management
- Screen Orientation
- Mobile Connection API
- Geolocation API
- Contacts API
- Proximity Sensor
- Web Activity
- ...

Web API

```
var contact = new mozContact();
contact.init({name: "John"});

var request = navigator.mozContacts.save(contact);
request.onsuccess = function() {
    // contact saved successfully
};
request.onerror = function() {
    // there was an error while trying to save the contact
};
```

Web API

```
navigator.vibrate(100);
```

```
navigator.getBattery();
```

```
document.addEventListener(  
    "visibilitychange",  
    function() { ... }  
);
```

Web Activity

```
var call = new MozActivity({  
  name: "dial",  
  data: {  
    number: "5555-9999"  
  }  
});
```


More info

- developer.mozilla.org
- wiki.mozilla.org
- marketplace.firefox.com
- Quick Guide For Firefox OS App Development

By Andre Garzia



Countries

- Australia
- Bangladesh
- Belgium
- Brazil
- Chile
- Colombia
- Costa Rica
- Czech Republic
- El Salvador
- France
- Germany
- Greece
- Guatemala
- Hungary
- India
- Italy
- Japan
- Luxembourg
- Macedoni
- Montenegro
- Mexico
- Nicaragua
- Panama
- Peru
- Philippines
- Poland
- Russia
- Serbia
- Spain
- Switzerland
- United Kingdom
- Uruguay
- Venezuela