

FirefoxOS

Mobile Web 2.0



Overview

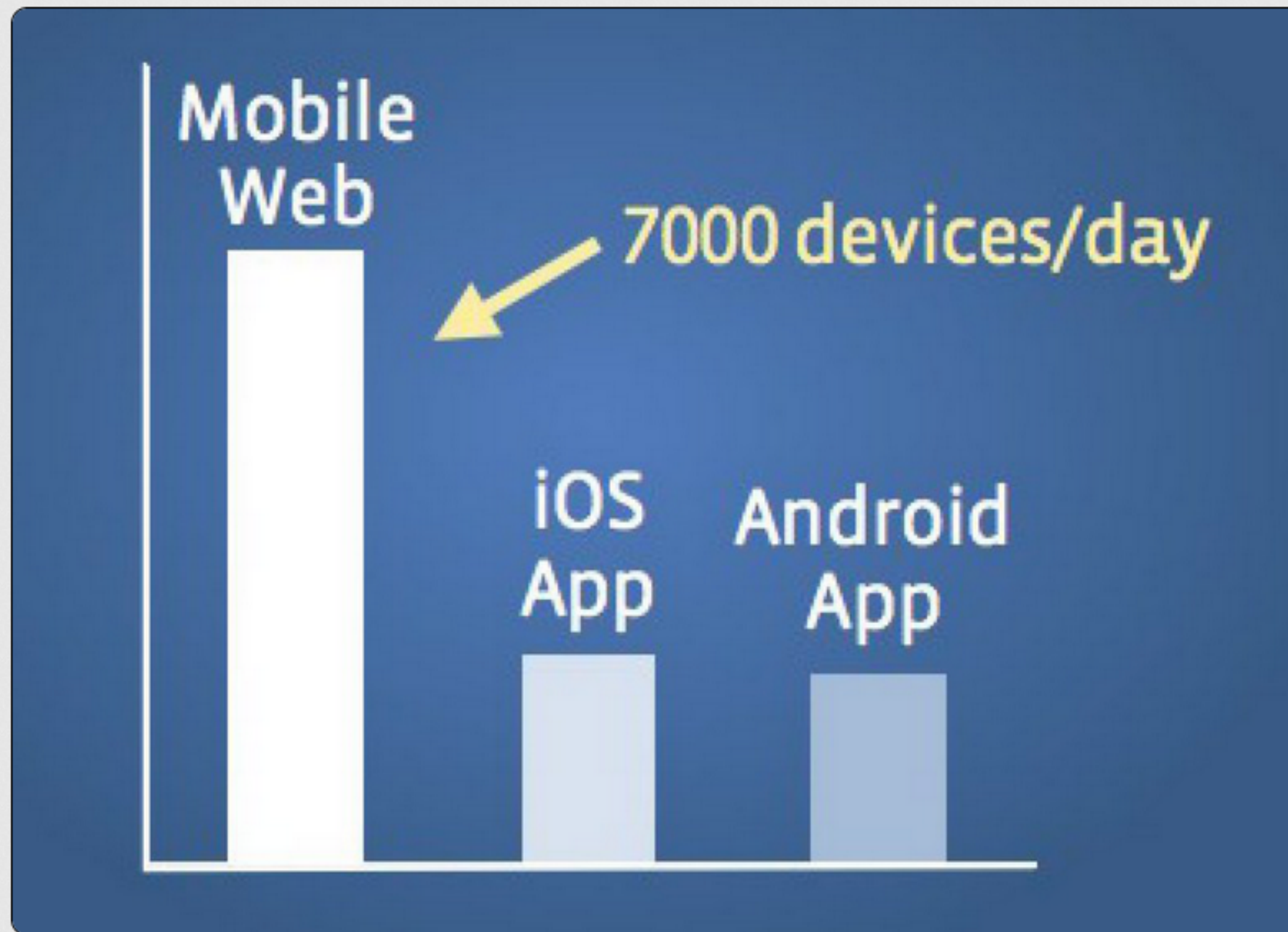
Info

Features

Trend

Background

Mobile Market



Facebook

History

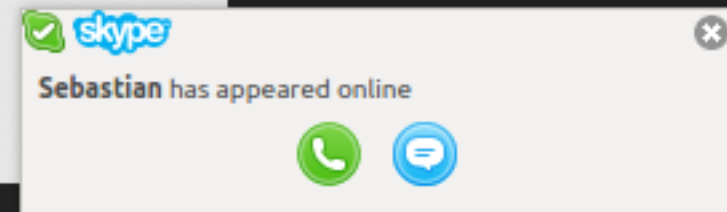
2011: Boot2Gecko

History

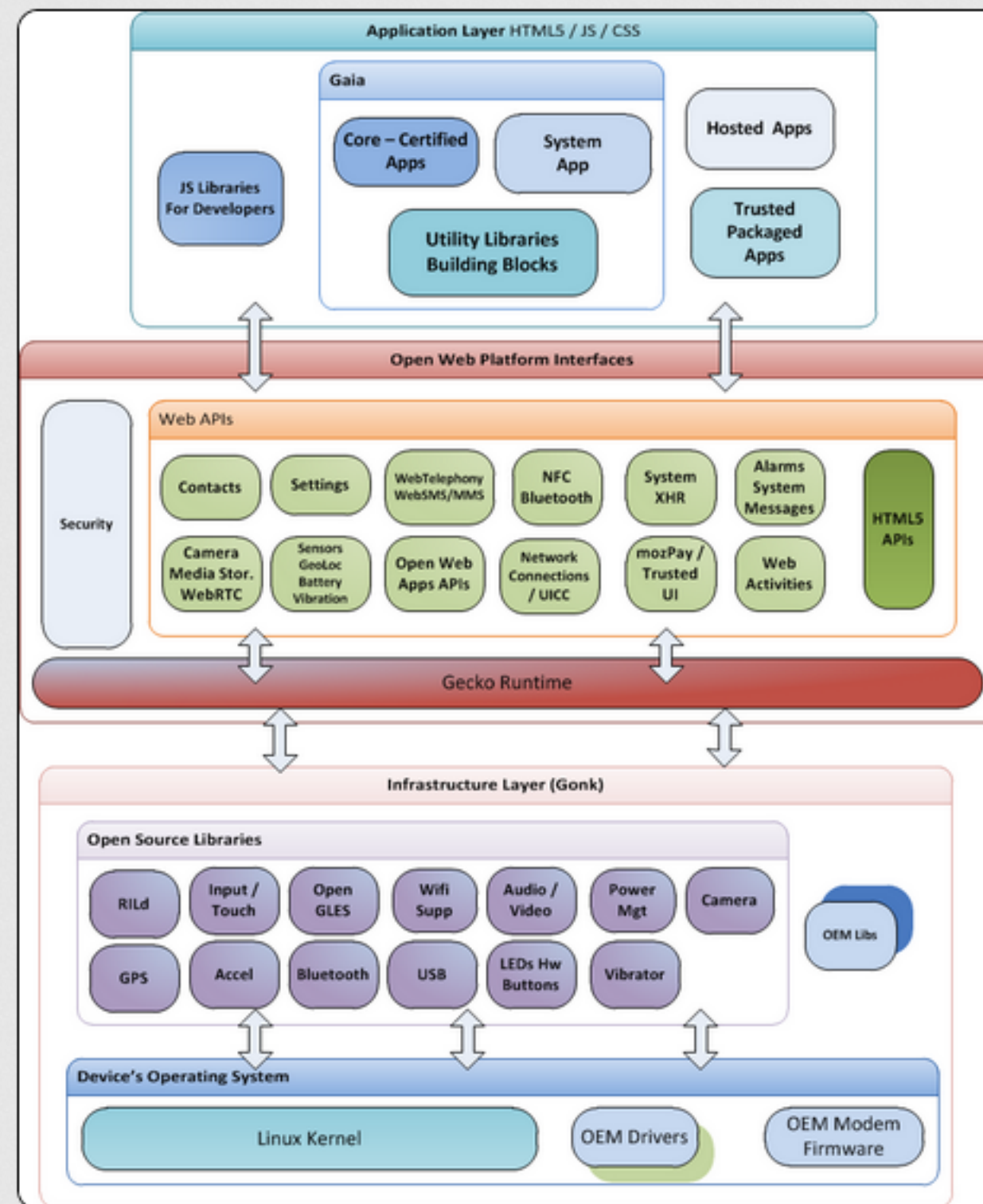
2011: Boot2Gecko



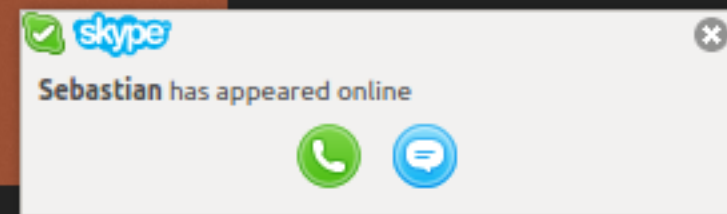
2013: FirefoxOS



Architecture



Code



Overview: WebAPI

D = Desktop, A = Android, B = B2G
only available to certified apps on this platform
only available to privileged and certified apps on this platform
implemented and preference enabled by default on on this platform
implemented but requires explicitly turning on the preference on this platform
not implemented for this platform
not currently planned for this platform

Position

Geolocation

```
var options = { enableHighAccuracy: true, timeout: 5000, maximumAge: 0 };

// lookup once
navigator.geolocation.getCurrentPosition( receivePosition, err, options );

// continous lookup - navigator.geolocation.clearWatch( id )
var id = navigator.geolocation.watchPosition( receivePosition, err, options);

function receivePosition ( pos ) {

    var coord = pos.coords;

    console.log('Latitude: ' + crd.latitude );
    console.log('Longitude: ' + crd.longitude );
    console.log('Accuracy: ' + crd.accuracy ); // meters
}
```

Visibility

```
/** Handler for visibility change */
document.addEventListener( 'visibilityChange', handleChange );

function handleChange(){

    var title = document.title.split(' [PAUSE]').pop();

    // check if currently hidden
    document.title = ( document.hidden ? '[PAUSE] - ' : ' ' ) + title;
}
```

getUserMedia

```
/** request permission */  
var config = { audio: true, video: true };  
  
navigator.getUserMedia( config, function ( e ) {  
  
    var video = document.createElement('video');  
  
    video.autoplay = true;  
  
    video.src = window.URL.createObjectURL( e );  
  
    document.body.appendChild( video );  
  
}, function ( err ) { console.log( err ); });
```

Device Orientation

```
window.addEventListener( 'deviceorientation', function ( e ) {  
  
    //alpha: rotation around z-axis  
    var rotatedDegrees = event.alpha;  
  
    //gamma: left to right  
    var leftToRight = event.gamma;  
  
    //beta: front back motion  
    var frontToBack = event.beta;  
});
```


Battery Status

```
var battery = navigator.battery || navigator.mozBattery;

battery.addEventListener( 'chargingchange', updateBatteryStatus );
battery.addEventListener( 'levelchange',    updateBatteryStatus );

function updateBatteryStatus(){

    console.log( 'Percentage: ' + battery.level * 100 + ' %' );
    console.log( 'Discharging: ' + battery.dischargingTime );

    if ( battery.charging ) console.log( 'Battery is charging!' );
};
```

Vibration

```
// vibrate once for 1 second
navigator.vibrate(1000);

// vibrate multiple times for 1-3 seconds
navigator.vibrate([ 1000, 2000, 3000 ]);

// stop vibration
navigator.vibrate(0);
```

Ambient Light Events

```
window.addEventListener( 'devicelight', function ( e ) {  
  
    // read the lux value  
    var lux = e.value;  
  
    console.log( lux < 50 ? 'dark' : 'bright' );  
});
```

WebPayment

```
var request = navigator.mozPay([signedJWT1, signedJWTn]);

request.onsuccess = function () {

    // The payment buy flow completed without errors.
    // This does NOT mean the payment was successful.
    waitForServerPostback();
}

request.onerror = function (errorMsg) {
    console.log( 'Error: ' + this.error.name + ': ' + errorMsg );
}
```

Working

WebTelephony

WebSMS

Web Bluetooth

Example

Web Apps

Packaged Apps

Web Apps

Packaged Apps

Hosted Apps

App Manifest

Deploy

App Manifest

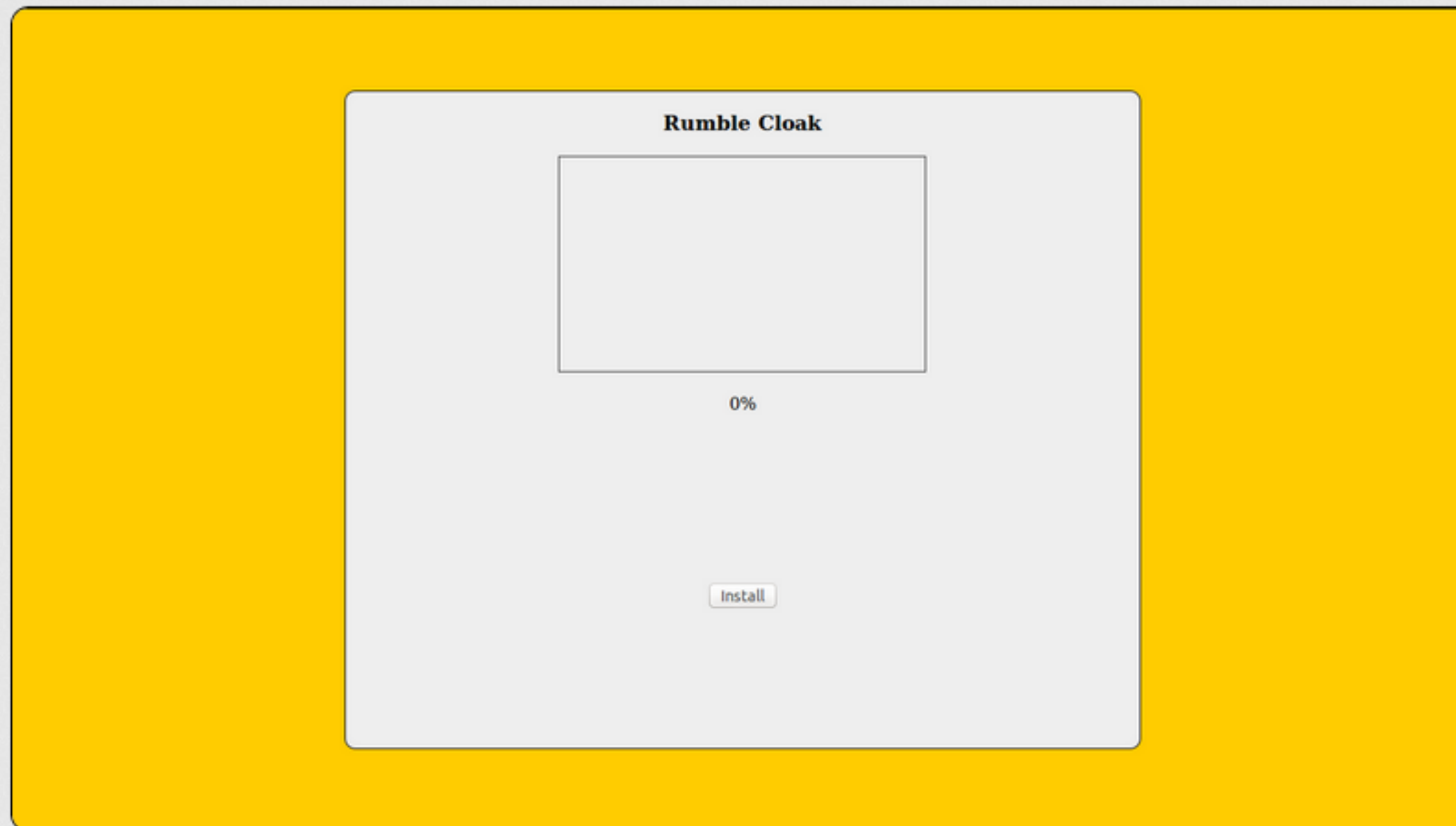
Offline Cache

Tools

Firebug

FirefoxOS Simulator

Rumble Cloak



Status

Plans

Connectivity

WebUSB

WebNFC

Distribution

Summer 2013

multiple vendors + carrier

References

Links

FirefoxOS (MDN)

User Guide

WebAPI Specs

Web Apps (MDN)

Style Guide

Questions & Discussion