Getting to know React Native

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Why React Native?

Write once, run everywhere

~~Write once, run everywhere~~

Learn once, write anywhere

~~Write once, run everywhere~~

~~Learn once, write anywhere~~

Horizontal Platform*

* I don’t know what that means

But, isn't this "NS" Meetup?!

What I learned...

👍 and 👎 of React Native

~~Getting to know~~
~~React Native~~

👍 and 👎 of React Native

👍#1

Rapid Prototyping

Lets write a tiny demo app!

Insta

Demogram

Node.js

```
> brew install node
> npm install -g react-native-cli
```

npm <=> Cocoapods

package.json <=> Podfile

<code>

0 to working in ~15 min!

👍#2

Code Reuse

~60% code reuse from web

~80% between iOS and Android

👍#3

Dynamic Updates

Developing

```
jsCodeLocation = [NSURL
  URLWithString:@"http://localhost:8081/
index.ios.bundle?platform=ios&dev=true"];
```

Production

```
jsCodeLocation = [[NSBundle mainBundle]
    URLForResource:@"main"
  withExtension:@"jsbundle"];
```

RNAU – https://github.com/aerofs/react-native-auto-updater

Microsoft CodePush – https://microsoft.github.io/code-push/

👎#1

Ton of JS == Lag

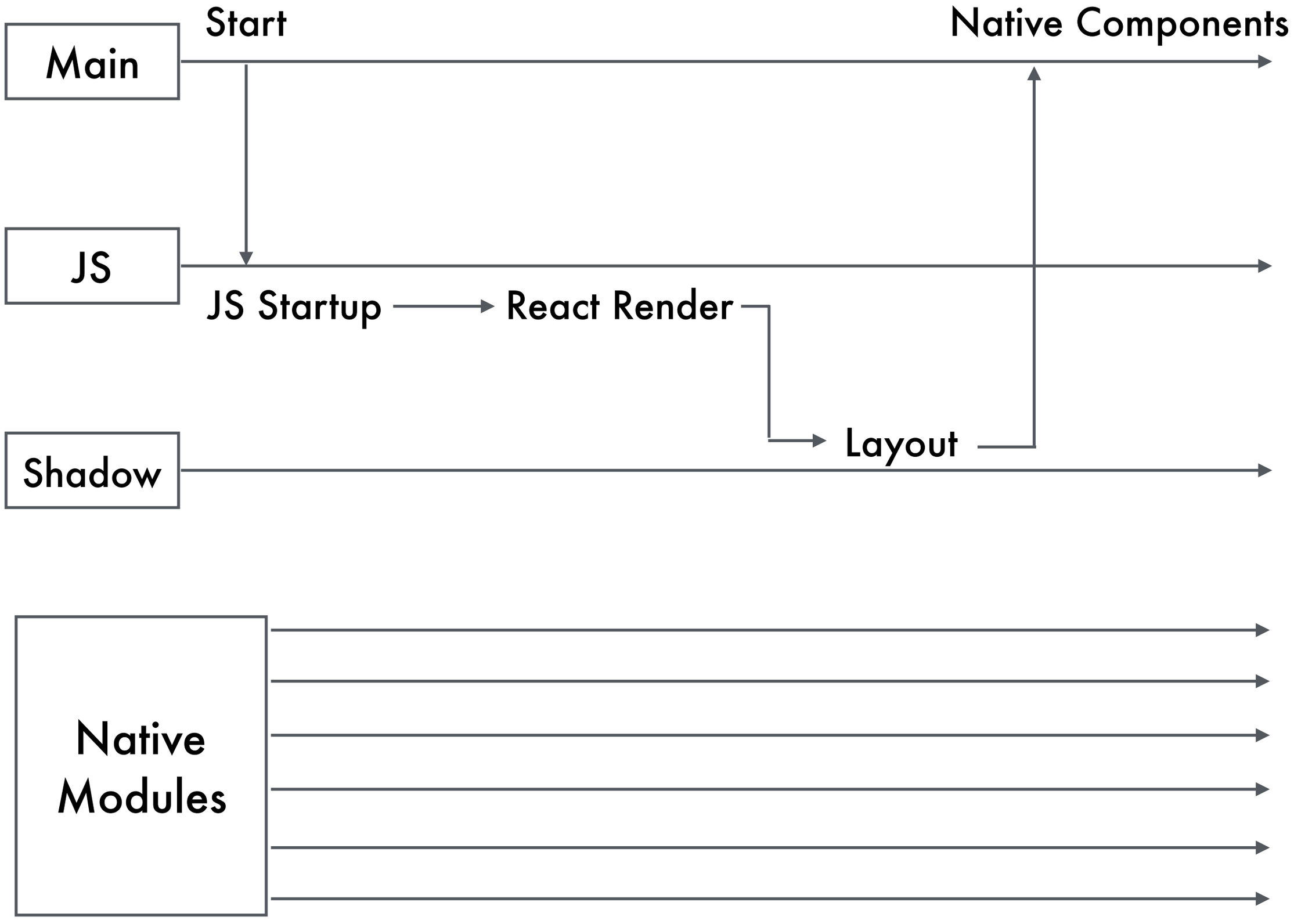
Native TextInput(Aladdin Kankakee land ka) is 16 events ahead of JS - try to make your JS faster.

Native TextInput(Aladdin Kankakee land ka) is 15 events ahead of JS - try to make your JS faster.

Native TextInput(Aladdin Kankakee land ka) is 14 events ahead of JS - try to make your JS faster.

Native TextInput(Aladdin Kankakee land ka) is 13 events ahead of JS - try to make your JS faster.

Native TextInput(Aladdin Kankakee land ka) is 12


Main
Start
Native Components
JS
JS Startup
React Render
Layout
Shadow
Native
Modules

C’mon, gimme a real life example!

File Handling

Lots of (inefficient) JS Code

`shouldComponentUpdate` method

Off-load to Native

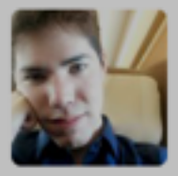
Example – http://moduscreate.com/react_native_custom_components_ios/

👎#2 Handling Files...

ide commented on Mar 25, 2015

FYI transferring data back and forth between JS and Obj-C is relatively slow so you'll probably want to keep all of the image data in Obj-C. I don't have numbers but I expect you will see it takes a measurable amount of time to transfer several MB of data. It's small compared to the amount of time it takes to upload the photo but it's a good idea to keep the JS <=> Obj-C message queue clear.

You could write a tiny bridge module that receives the asset URL and then performs the upload, reporting progress/error/success information back to JS.



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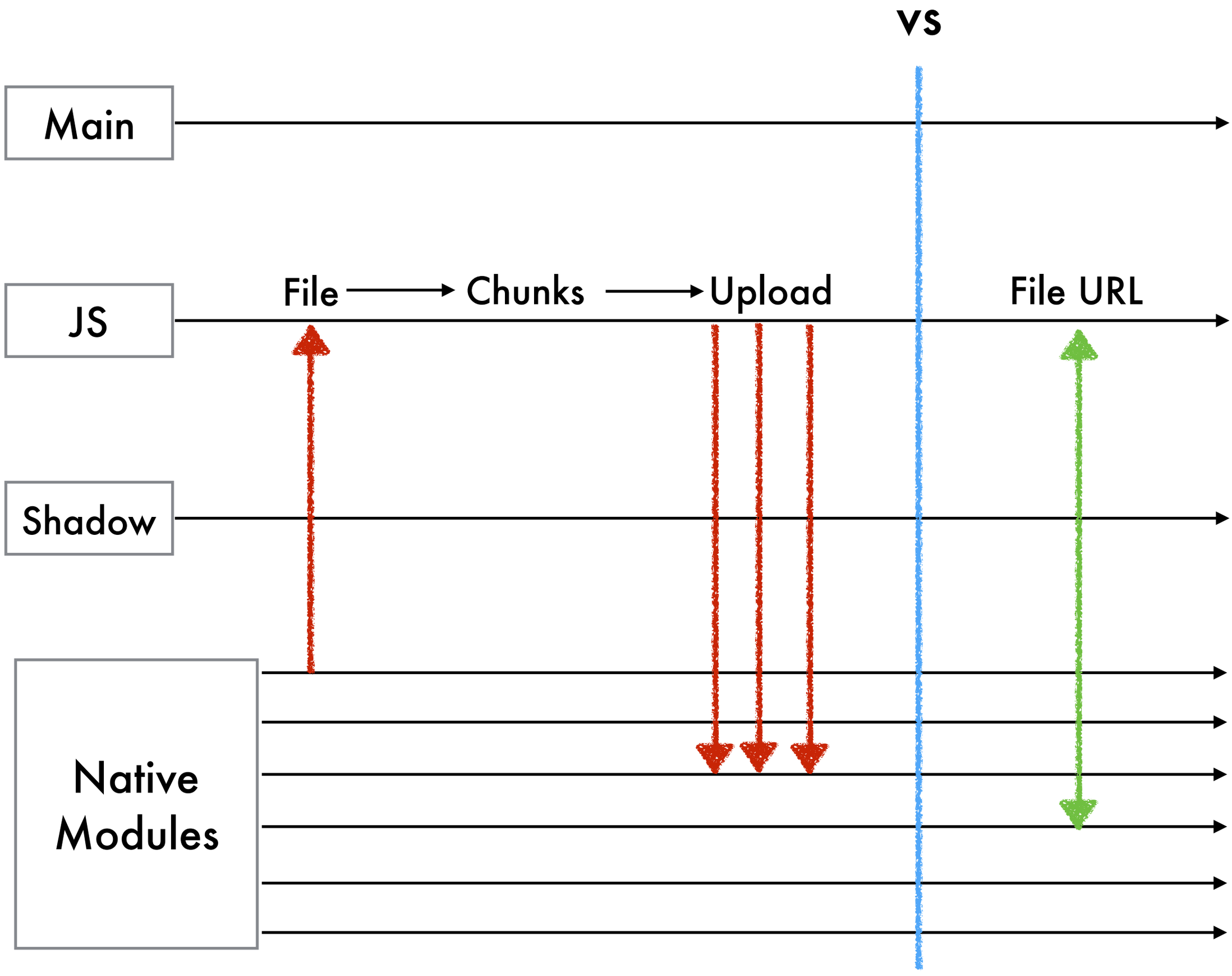

vs
Main
JS
File
Chunks
Upload
File URL
Shadow
Native
Modules

👎🏽#3

"All non-trivial abstractions, to some degree, are leaky."

— Joel Spolsky

Bugs in React Native

Lack of understanding

Lack of documentation and help

...but React Native is new, and growing really fast!

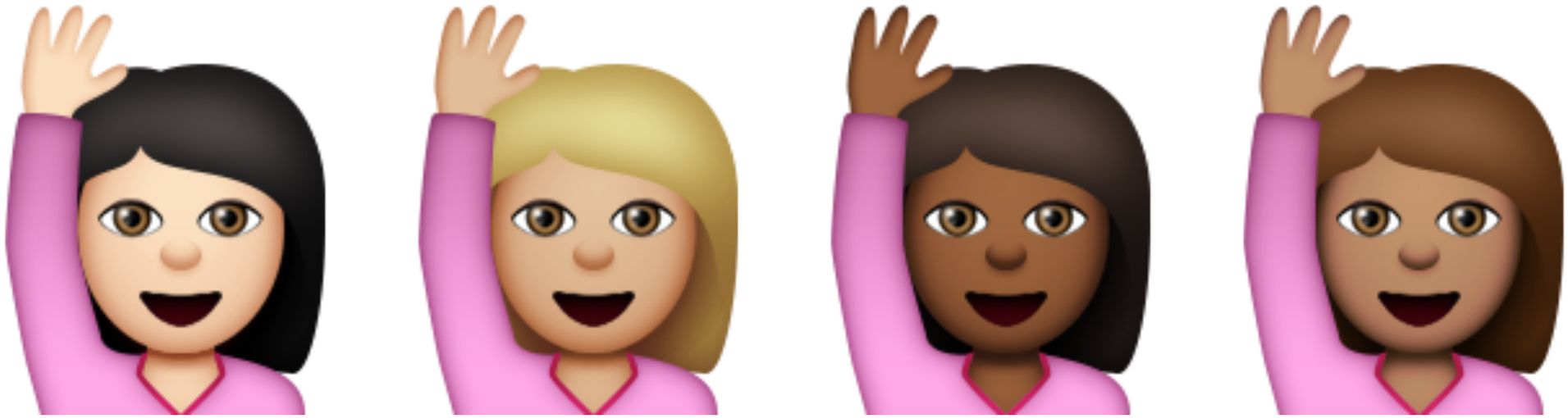
React Native is awesome!

… and evolving really fast

Fine Balance

What would I use it for? *

* YMMV



demo code and the slide deck –
https://github.com/rahuljiresal/nsmeetup-talk

React Native Components –
https://react.parts/native

React Native Official –
https://facebook.github.io/react-native/

React Native Bridges In-Depth –
http://tadeuzagallo.com/blog/react-native-bridge/