

Safari App Extensions Cleared up

CocoaHeads October 2016

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@Dashlane

History

Extensions in Safari

2010

2011

2012

2014

Safari 5

New events

Safari 6

App Extensions

OS X & Windows

Popover
Extension Menu

~~Windows~~

iOS & OS X

JS CSS HTML

Share

Photo

Today

Safari Extension Gallery

Custom Keyboard

Automatic Updates

Finder

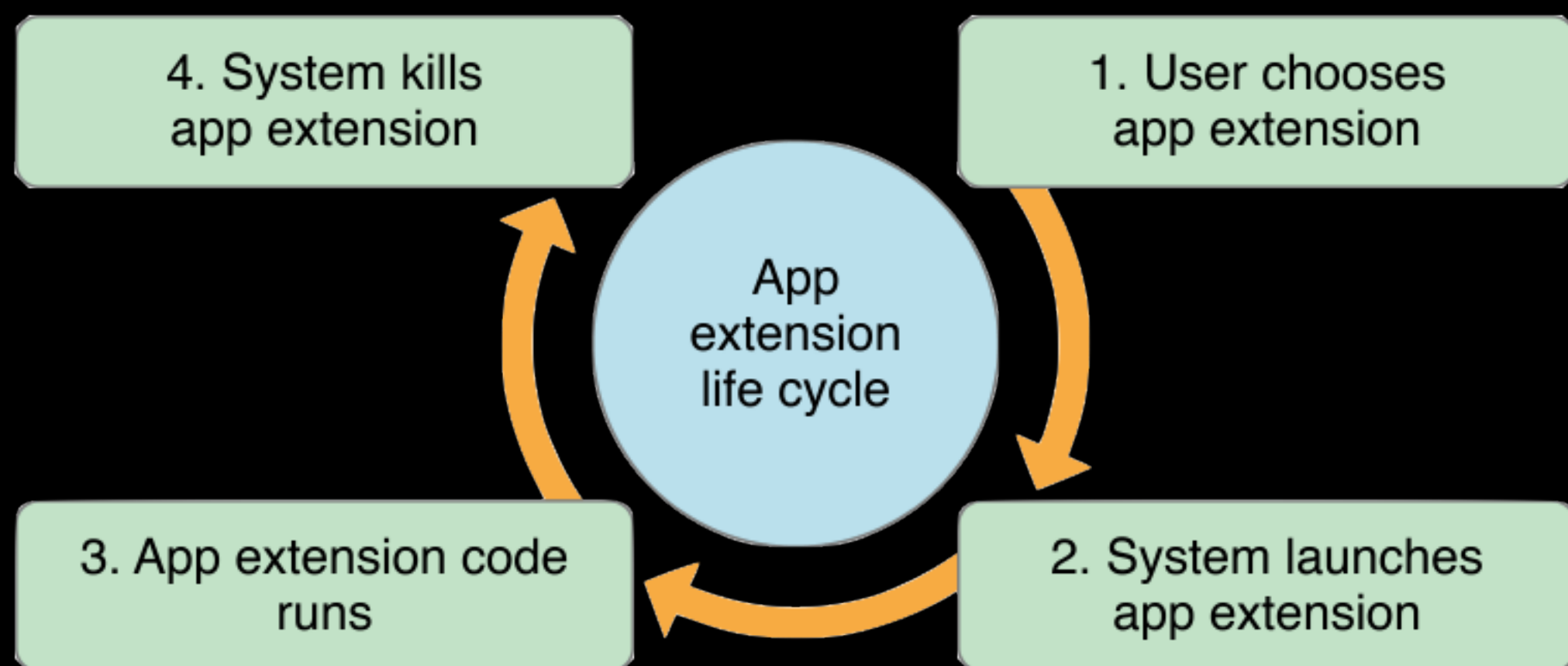
Action

App Extensions

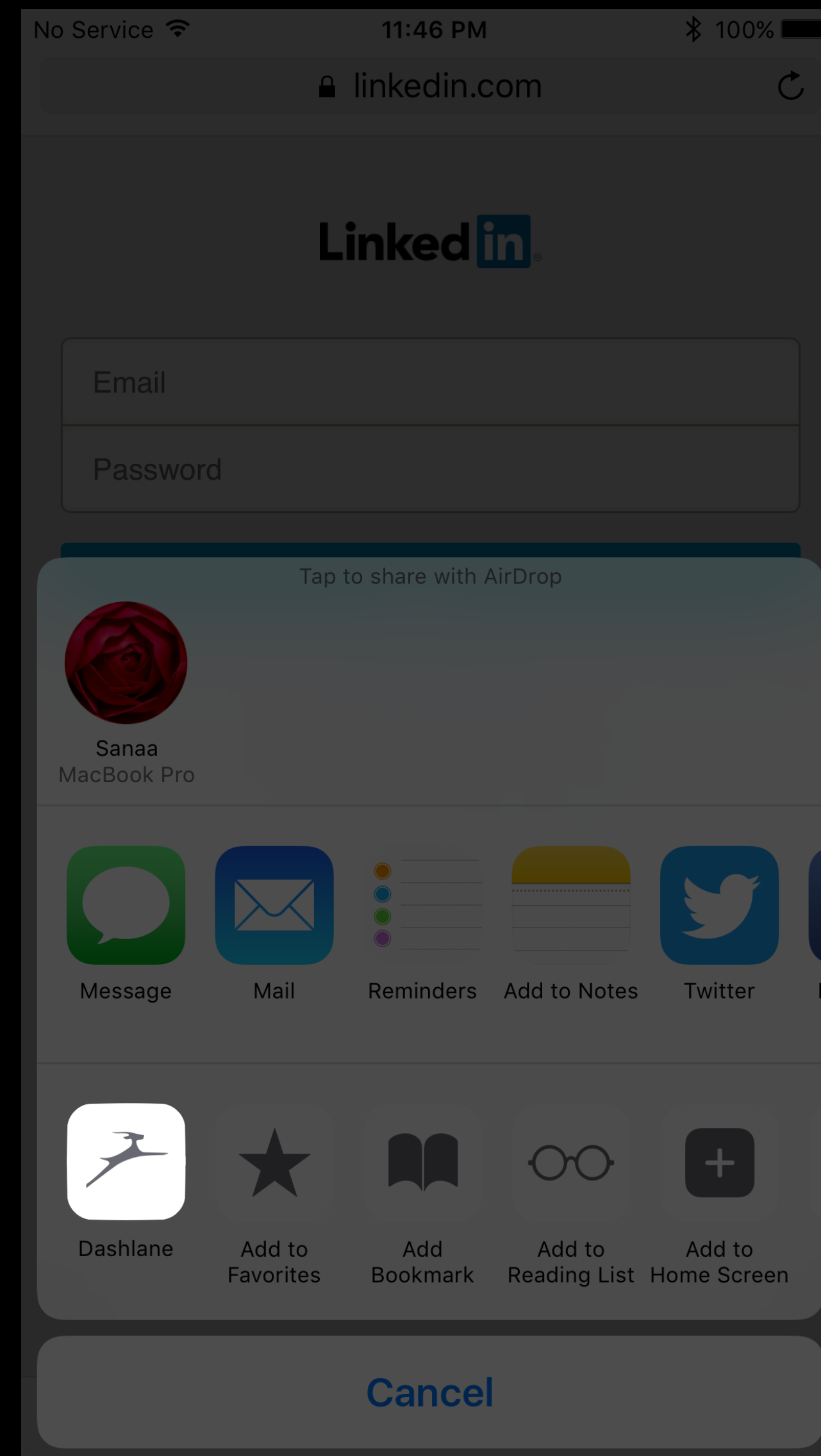
Native code

Distributed within an app, not standalone

One loop Life Cycle



Safari Custom Action Extension only on iOS



History

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2015

2016

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App Extensions

Content Blocker

Safari App Extensions

OS X & Windows

Popover
Extension Menu

~~Windows~~

iOS & OS X

Paid program

macOS

JS CSS HTML

Share
Photo
Today

Auto Updates
only for gallery

Safari Extension Gallery

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Safari App Extensions

What's new and what are the benefits?

Compatibility: Safari 10 on El Capitan or Sierra

Built using: JavaScript, CSS and Swift / Objective-C

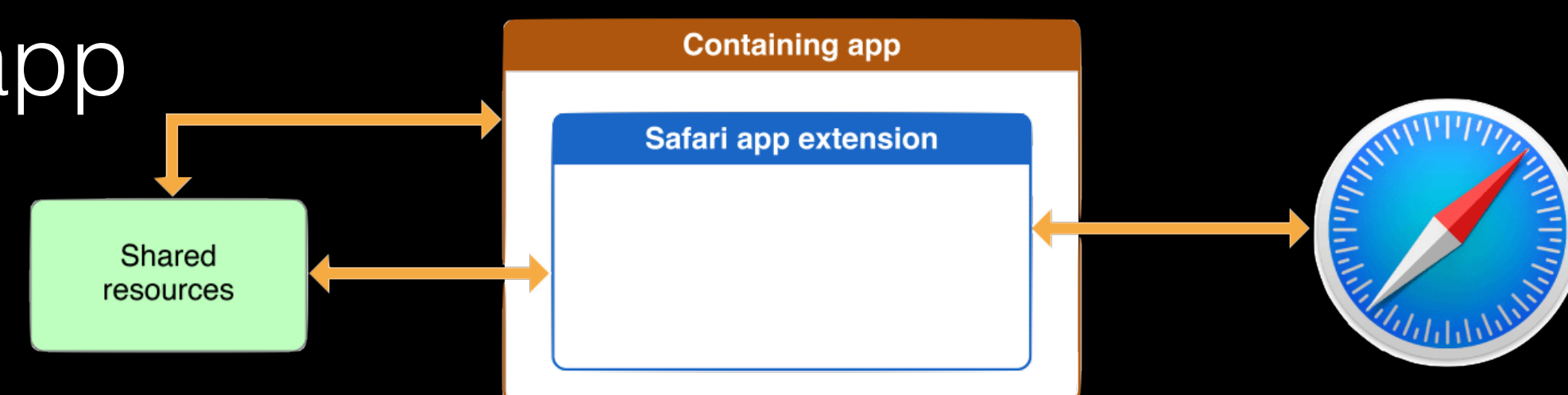
Safari App Extension is bundled inside a macOS app

Distributed via Mac App Store

No mismatch revision between app and extension

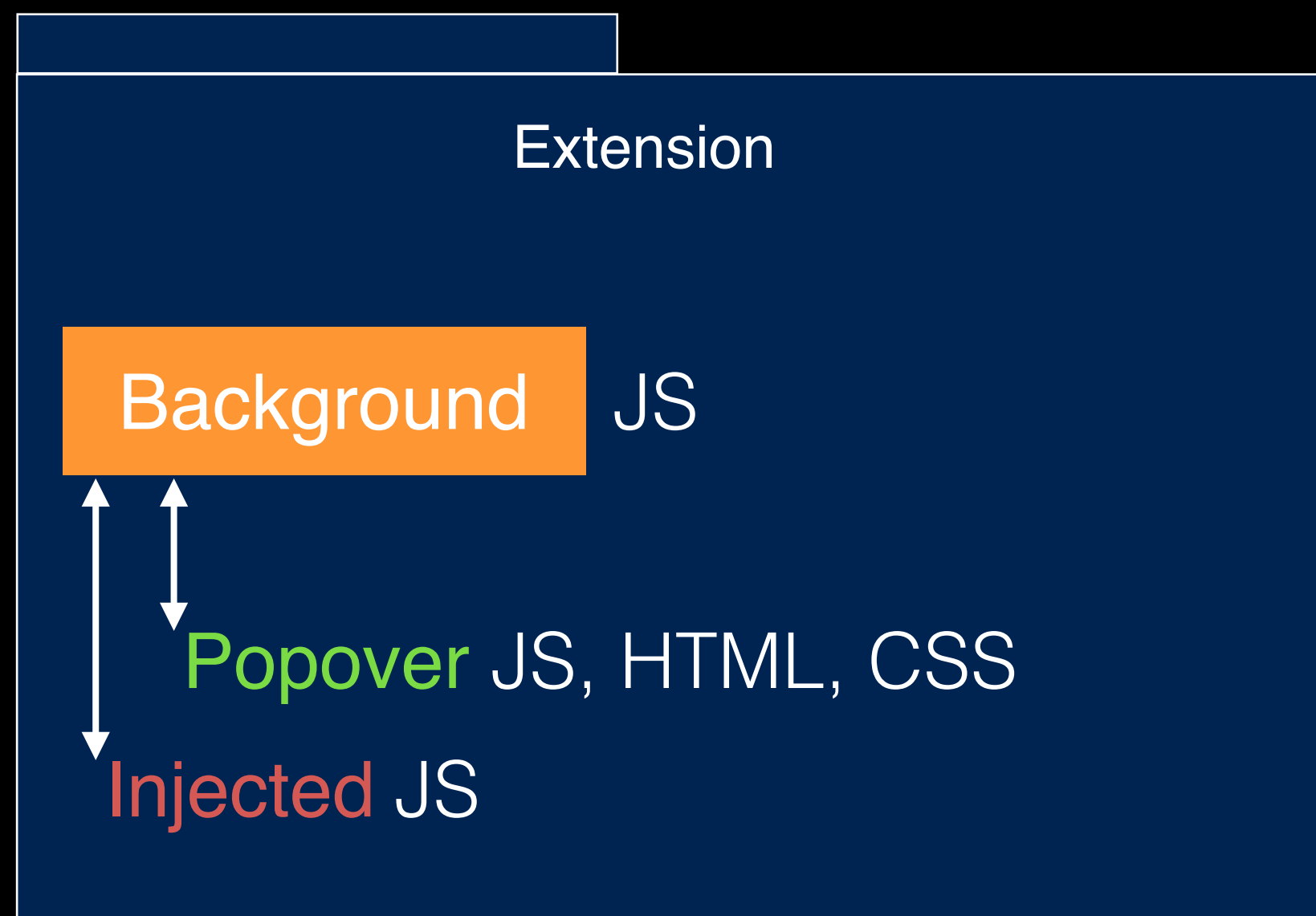
Securely communicates with the app using the shared resources

Possibility to check if the extension is enabled



Migrate To Safari App Extensions

Old Extensions



Migrate To Safari App Extensions

Apple Developer Docs

Use Xcode to create an app extension

Global page must be now done in native code

Popovers are created in Native code

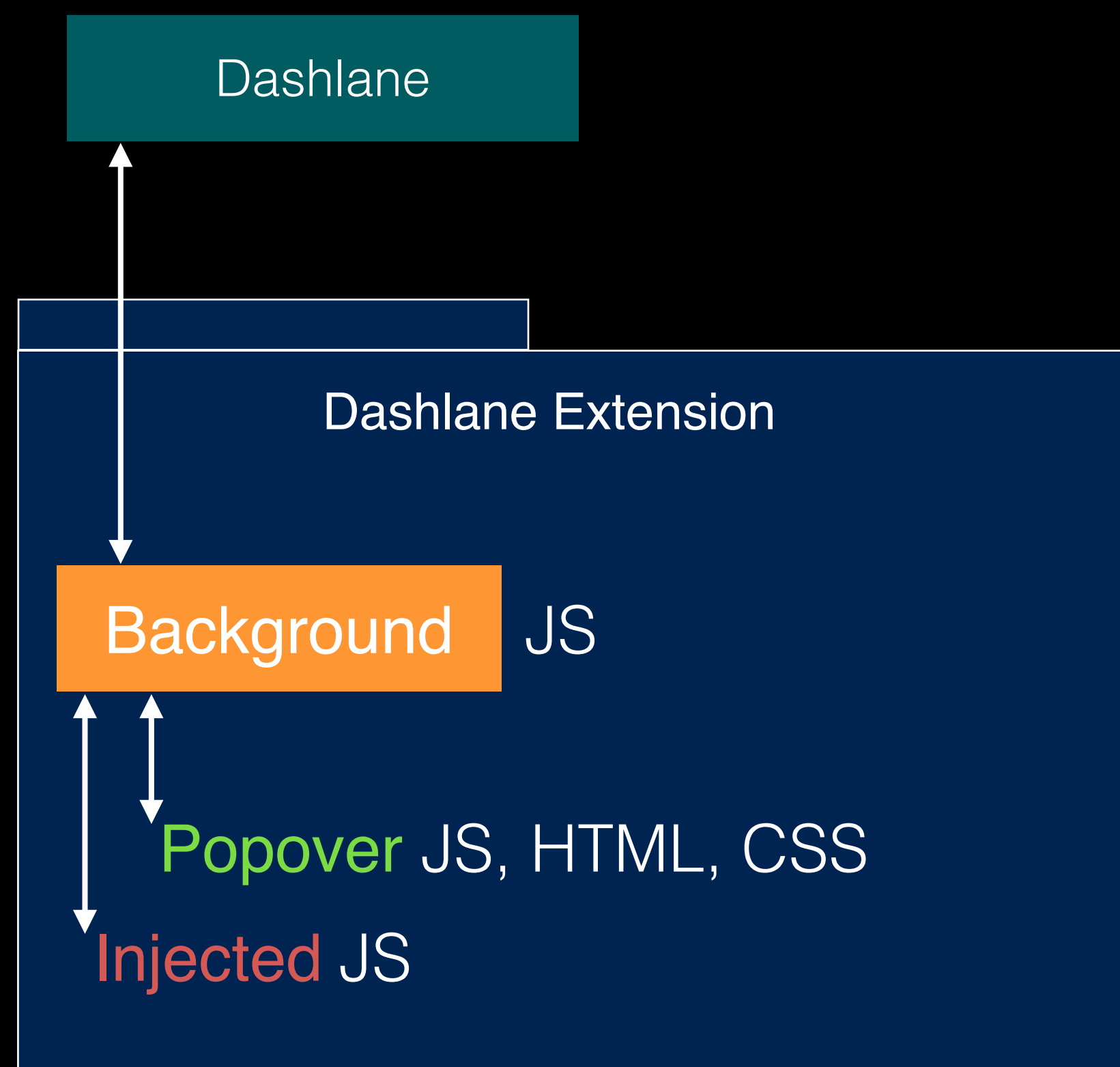
Few changes between the extension and the injected script

Cannot create multiple menu items

Cannot create extension bar

Migrate To Safari App Extensions

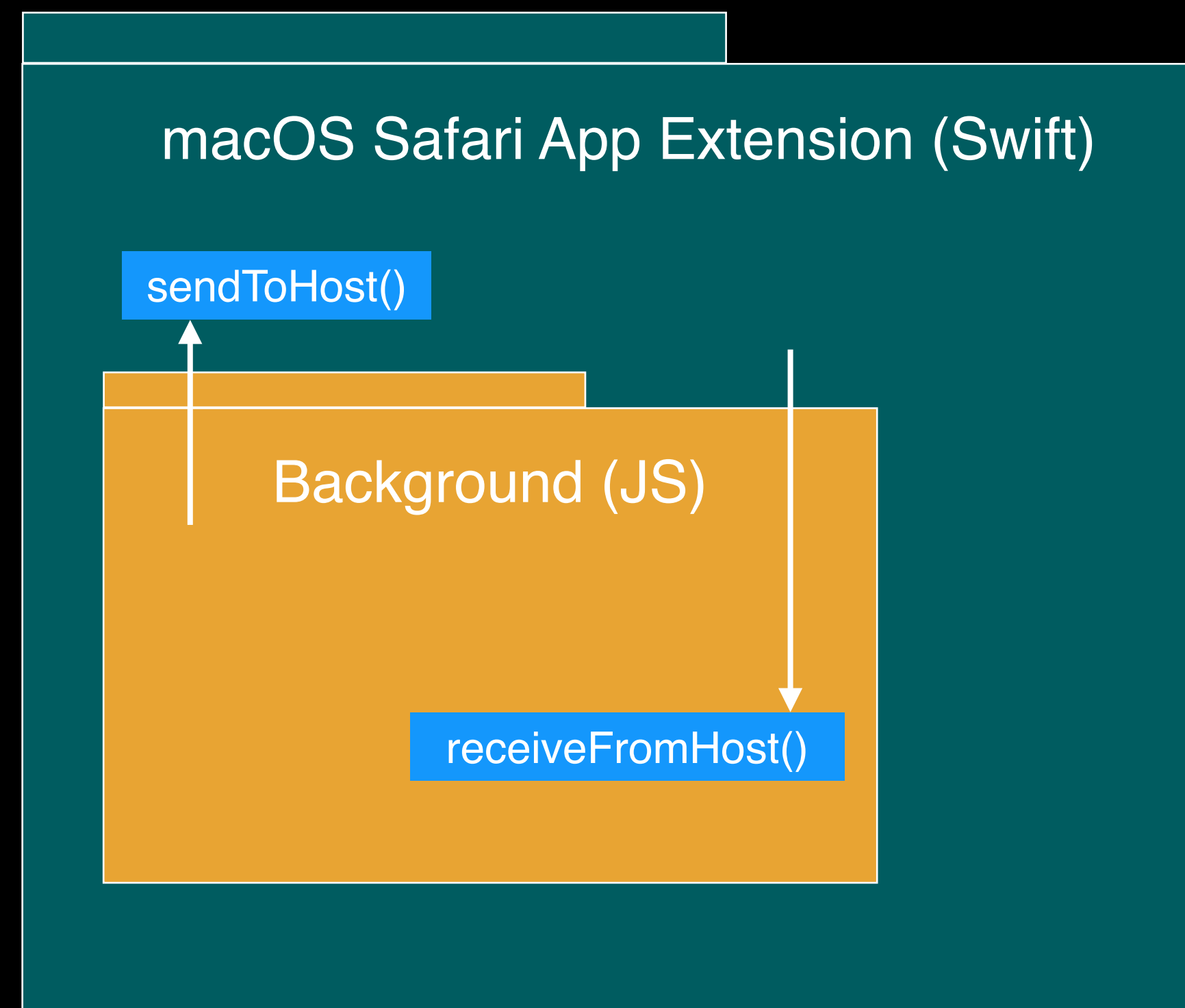
Dashlane Extension Example



Migrate To Safari App Extensions

Hacking Safari App Extensions

Basic Architecture (2-way communication) using JavaScript Core Framework



Demo

Hacking Safari App Extensions

Q&A