

# Connect to GraFx Publisher's API Publisher Interface Library

Sean Crowe – Global Director of Technical Success



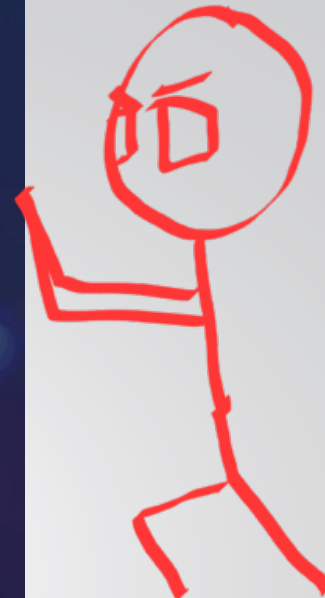


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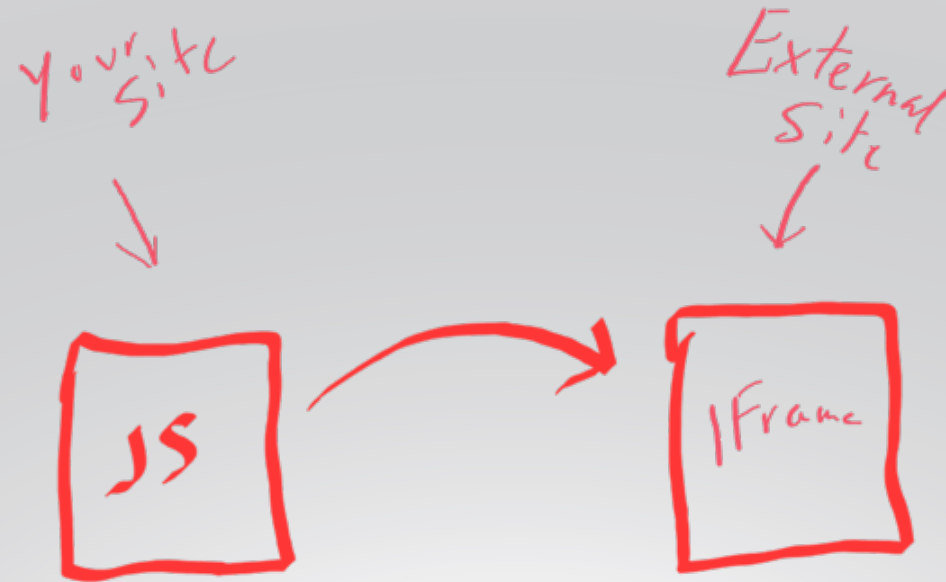
Wait! We are  
not ready yet!



# Let us review some background

# What you would like to do

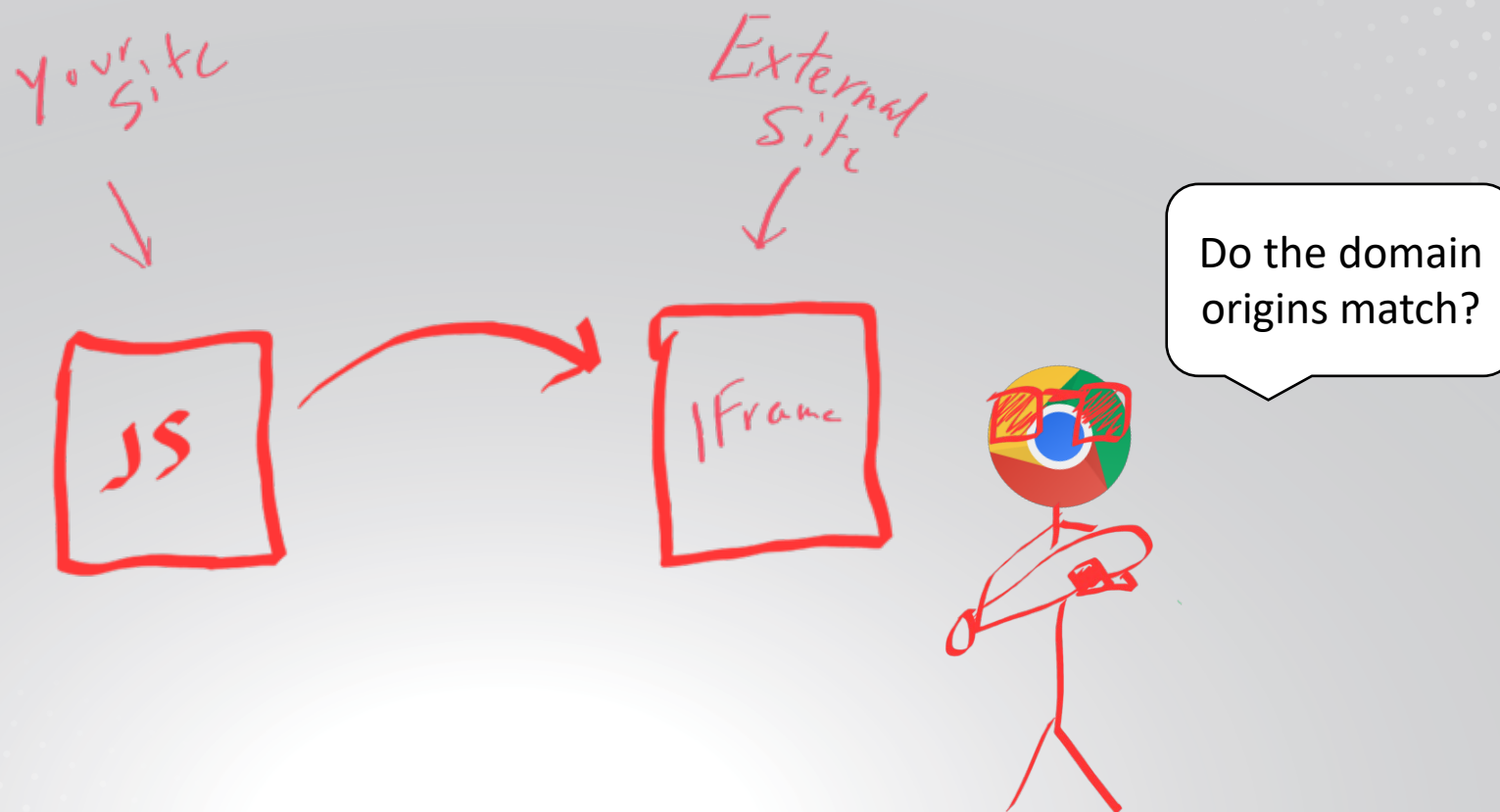
We want to make a JavaScript API call from our site to an external site



# Browse Security

Before allowing, browsers will check to see if the domains match

- same-origin policy



# What happens with GraFx/Online?



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- Your domain: whatever.example.com
- Publisher domain: cp-xyz-123.chili-publish.online



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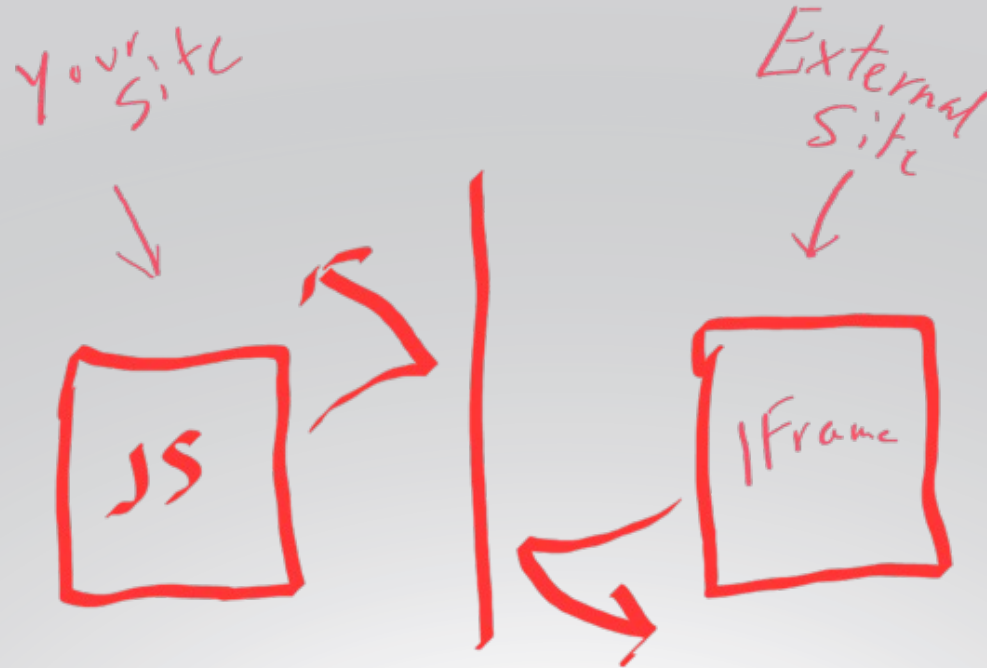


JavaScript  
BLOCKED!



# Blocked!

By default, browsers will block all JavaScript calls between your site and Publisher due to the domains not being the same



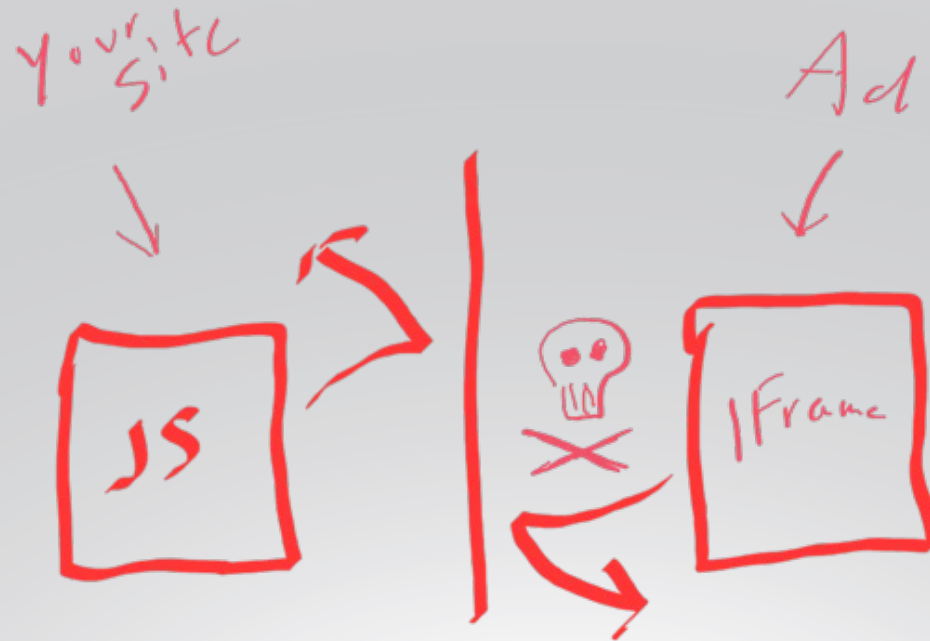
# Side Note

This is actually a good thing!

- Most inline frames are used to load Ads (or trackers) from an unknown source.
- Browser security blocks JavaScript being ran from these unknown sources
  - They could contain phishing attempts, hacks, or viruses.

# Inline frames are safe

The browser will keep the inline frame nice and safe by blocking any JavaScript interaction



# Inconvenient

Except, GraFx Publisher is not an ad, so this security is stopping our integration from using JavaScript APIs



# Solutions?

Previously there were only two solutions:

- Setup a reverse proxy
- Use the document.domain trick



# Reverse Proxy... the bad

- Have to maintain a server to proxy requests
- All REST API issues must be investigated with the reverse proxy in mind
- Removes benefit of GraFx CDN
- Slower than direct calls (ms)
- Allows the CHILI document to interact with DOM of parent window

# Document Domain Trick... the bad

- Marked as deprecated
- Will be removed from Chrome sometime in January 2023
- Allows the CHILI document to interact with DOM of parent window



# We need something else

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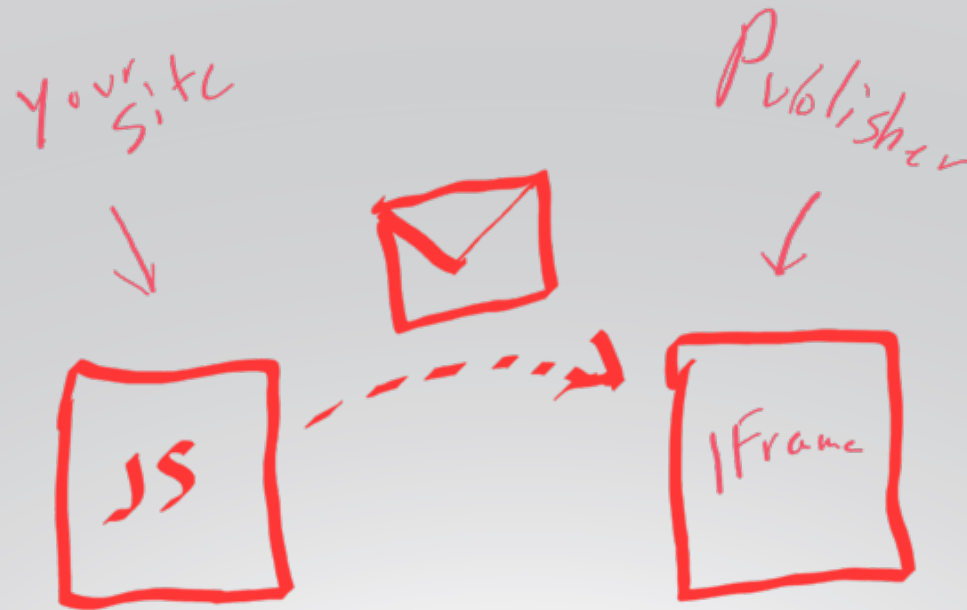
`postMessage` is an API provided by browsers to send messages from one window to another

It is safe because both the messenger and the receiver must agree to the message interface

# postMessage allows us to be safe

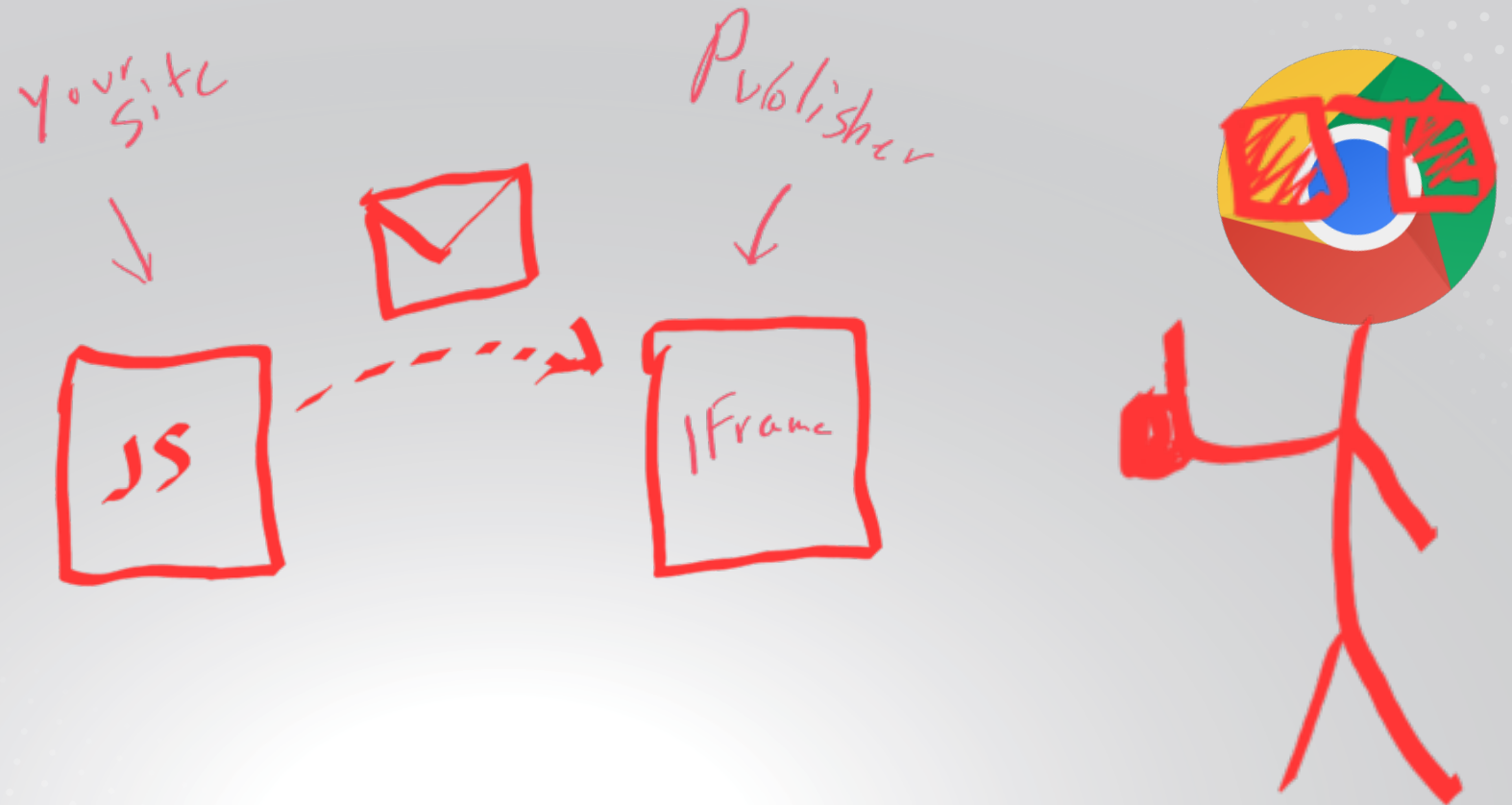


Instead of making a direct JavaScript API call, we send a message to GraFx Publisher



# Browser security is happy

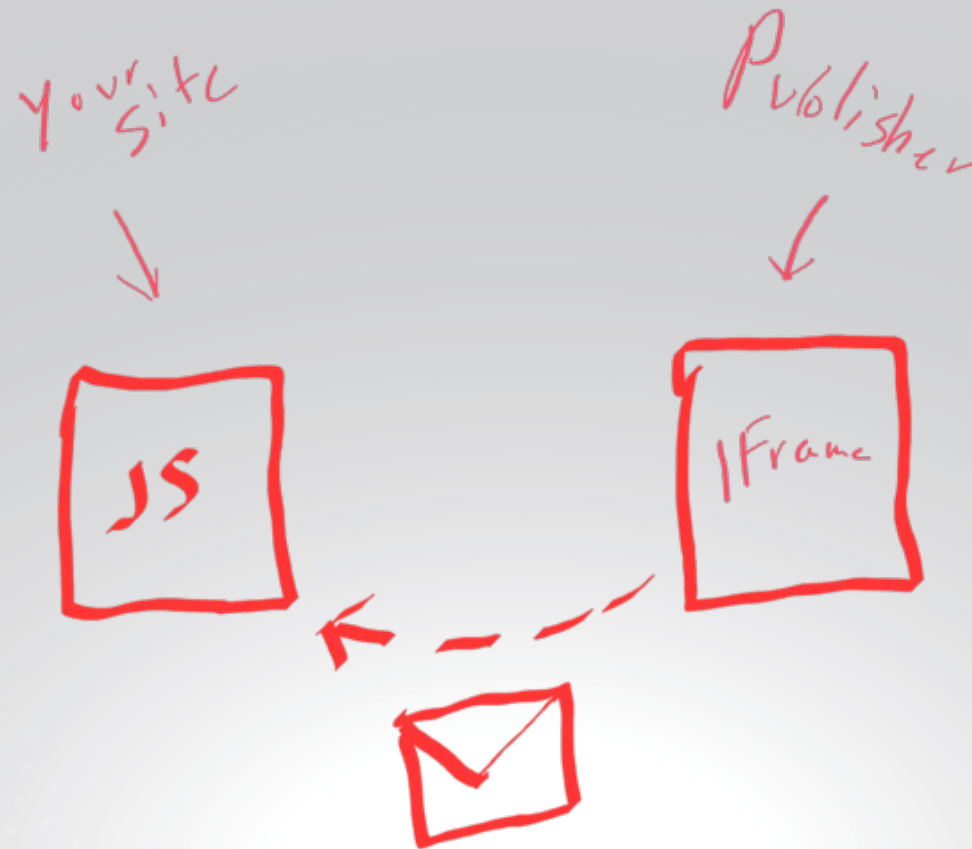
This is the way browsers want us to communicate, so the browser is happy.





# Publisher sends a message back

Once the message is received, Publisher will send us a response back.



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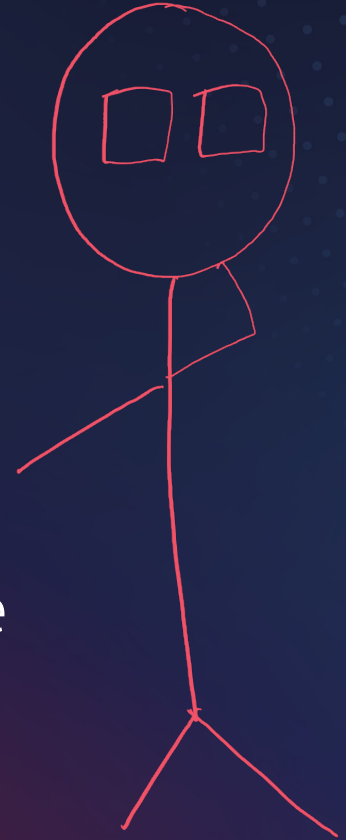
# What is the Publisher Interface?

Publisher Interface is a library that allows you to interact with the CHILI Publisher editorObject via postMessage without the complexity of postMessage.



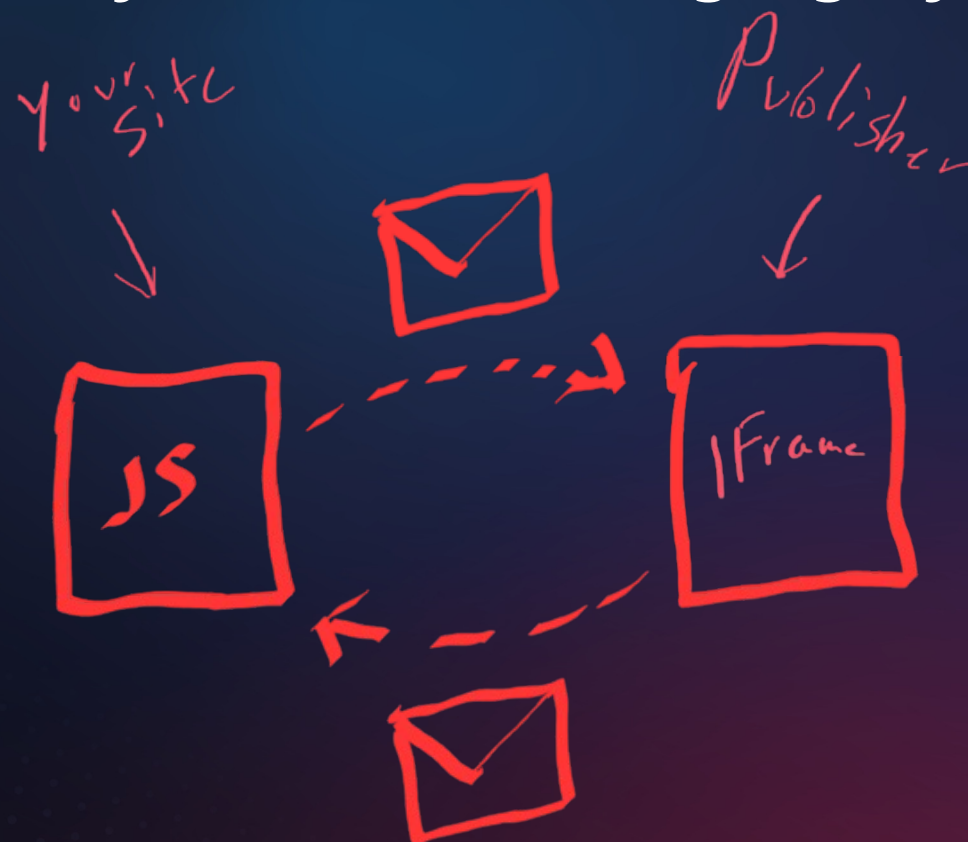
# Why a new API interface?

- Boost Ease of Use
  - No need for workarounds
  - JavaScript API hides complexity of postMessage
- Security
  - JavaScript in the document cannot affect parent frame
- Deprecation
  - Document.domain trick is being removed from Chrome in 2023



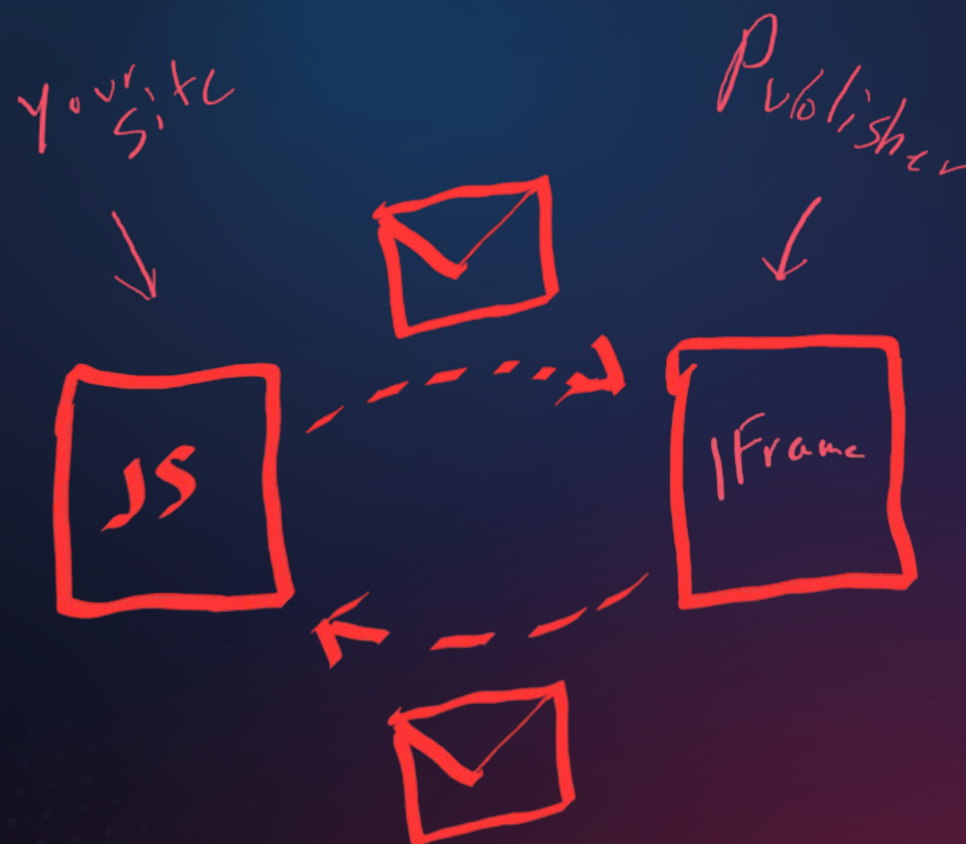
# Any Downsides?

- Well depends if you are converting legacy code



# Any Downsides?

- Asynchronous API calls when the old ones where synchronous



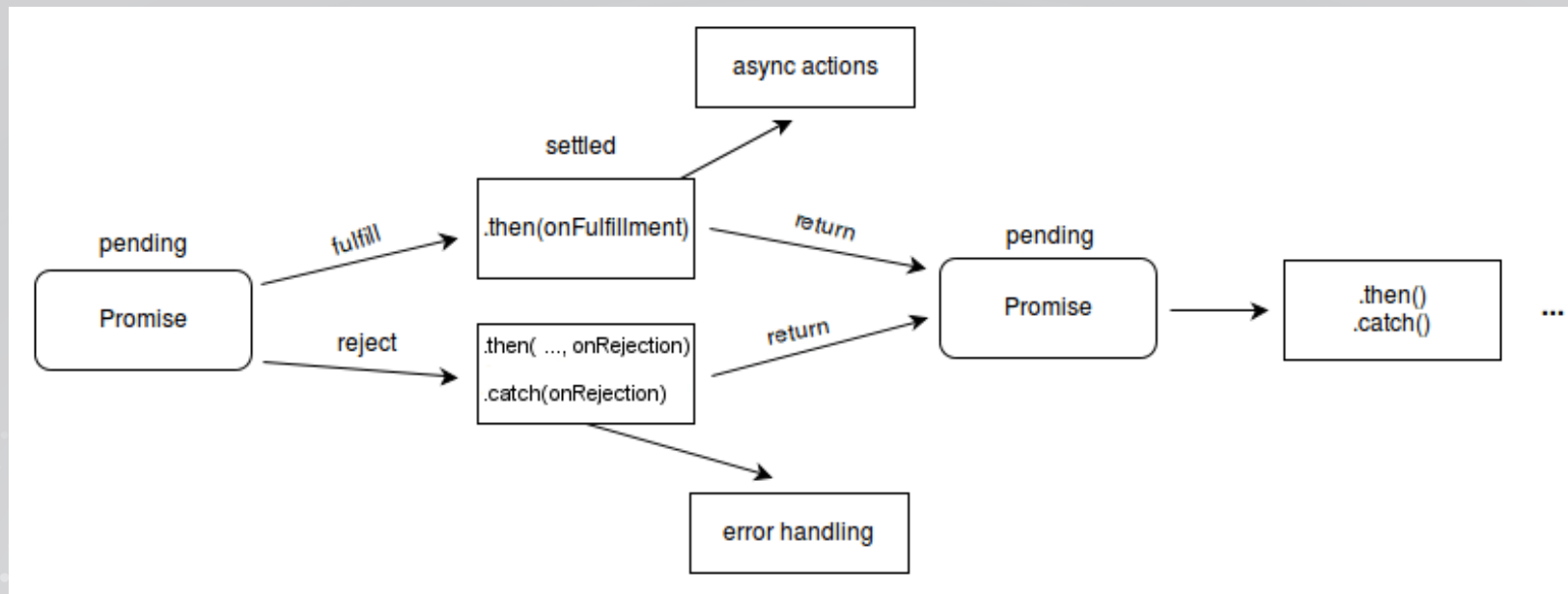


## 2 Design Goals

- Goal 1: make working with the Publisher Interface as easy as can be
- Goal 2: Make using Publisher Interface as 1:1 as possible an experience to using editorObject
- You can find extensive documentation on at our wiki:
  - <https://github.com/chili-publish/publisher-interface/wiki>

# Publisher Interface Almost Same

- Almost everything is the same API wise, except the API calls return a Promise



Let Us Code





# Questions

The background is a dark blue gradient. It features several glowing blue dots of varying sizes, some of which are part of a cluster on the left side. Two large, glowing purple arcs are visible in the lower right quadrant, creating a sense of depth and movement.



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