iOS-JSSDK

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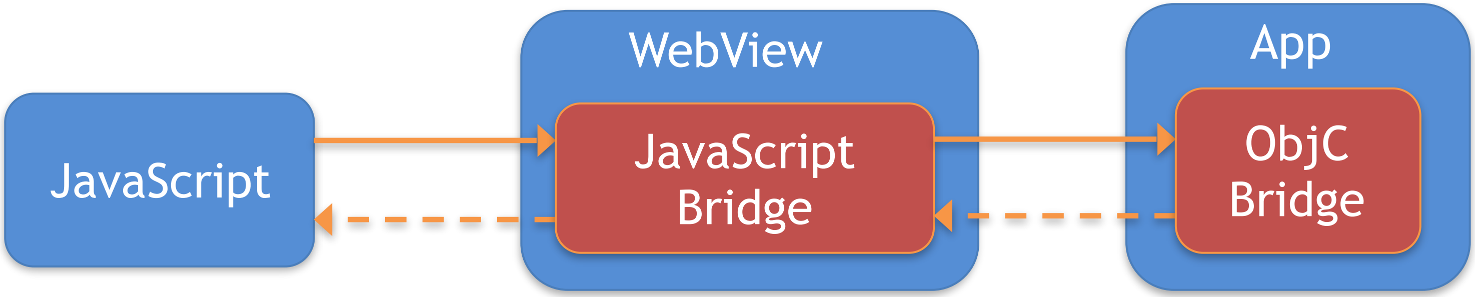
What’s iOS-JSSDK

- iOS平台上可复用的JSSDK，供WebView中的JS调用；
  - 已有功能
    - 获取空间信息
    - 获取网络状态
    - 获取电池状态
    - 访问相册
    - 扫描Beacon
    - …
  - 扩展性

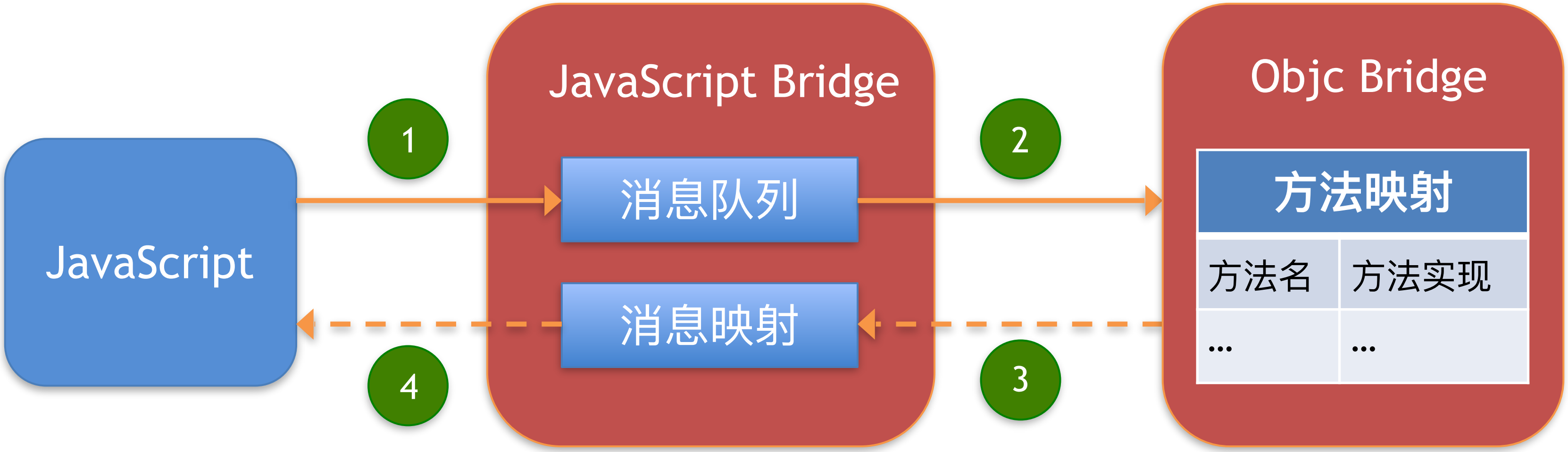
使用限制

- 支持iOS 6+
- 仅支持Objective-C，暂不支持Swift
- 仅支持UIWebView，暂不支持WKWebView
- 依赖第三方库WebViewJavascriptBridge
  - https://github.com/marcuswestin/

架构



架构详解



JavaScript

1

JavaScript Bridge

消息队列

消息映射

4

2

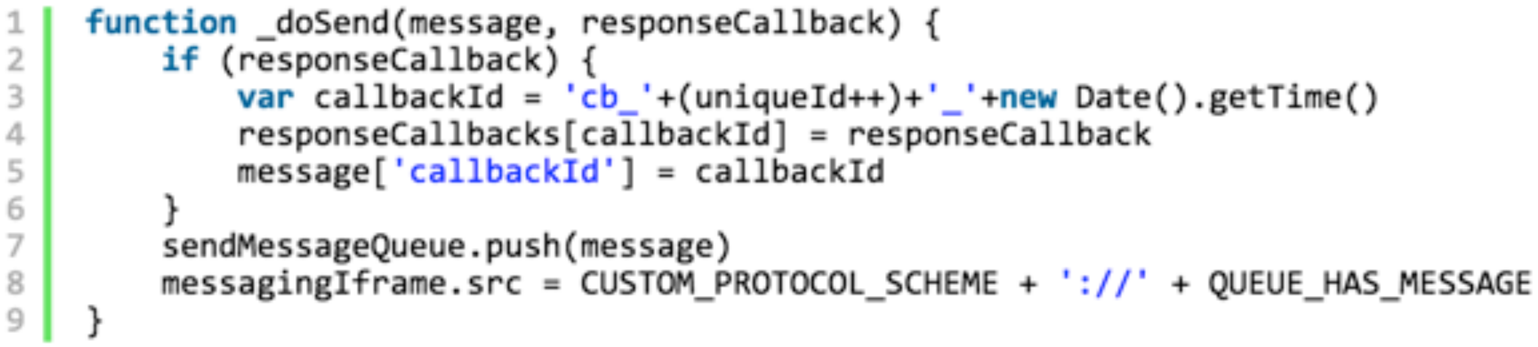
3

Objc Bridge

方法映射	
方法名	方法实现
…	…

JavaScript Bridge

第1步



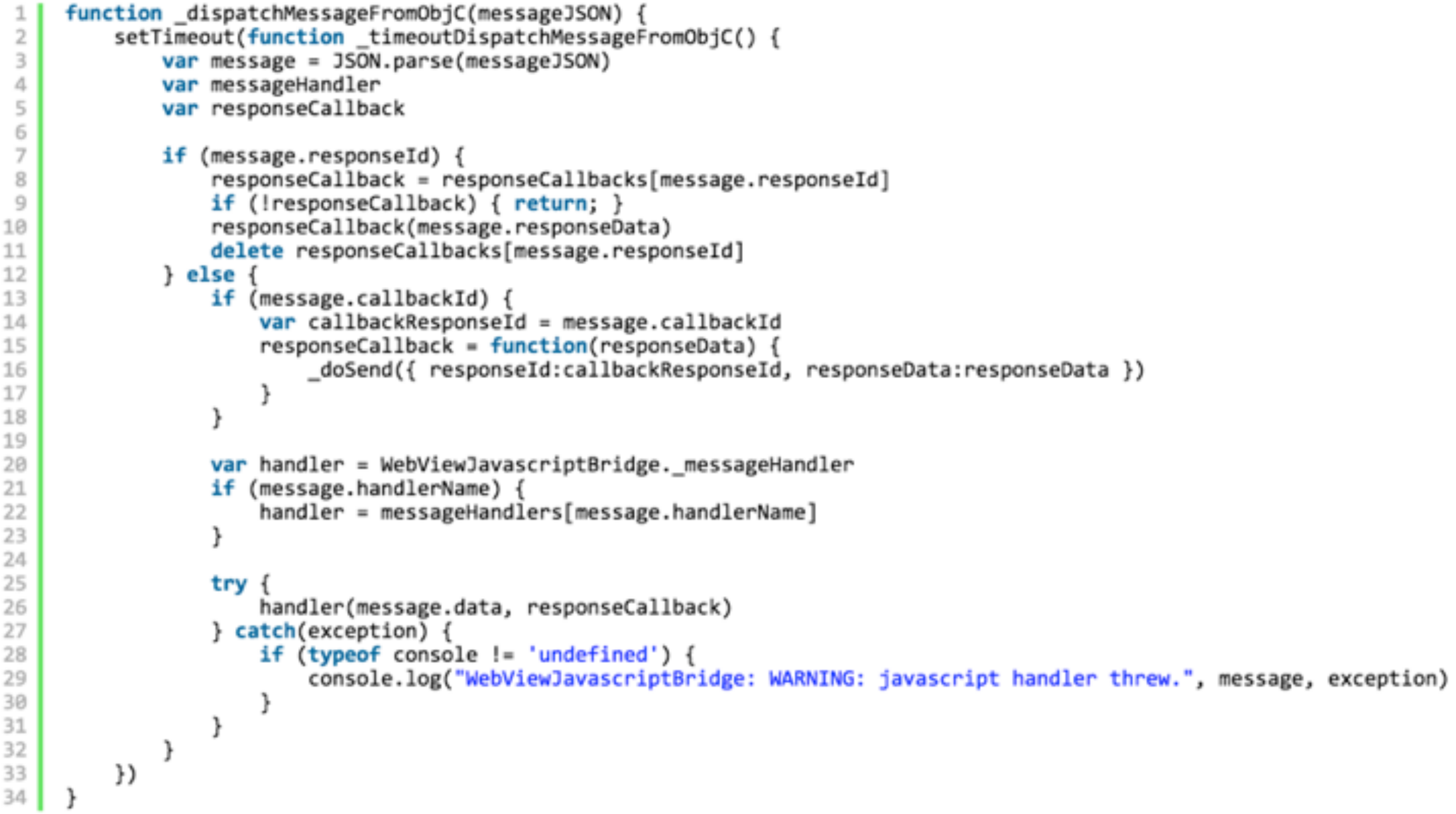
```
function _doSend(message, responseCallback) {
    if (responseCallback) {
        var callbackId = 'cb_'+(uniqueId++)+'_'+new Date().getTime()
        responseCallbacks[callbackId] = responseCallback
        message['callbackId'] = callbackId
    }
    sendMessageQueue.push(message)
    messagingIframe.src = CUSTOM_PROTOCOL_SCHEME + '://' + QUEUE_HAS_MESSAGE
}
```

responseCallBacks: 消息映射

sendMessageQueue: 消息队列

JavaScript Bridge

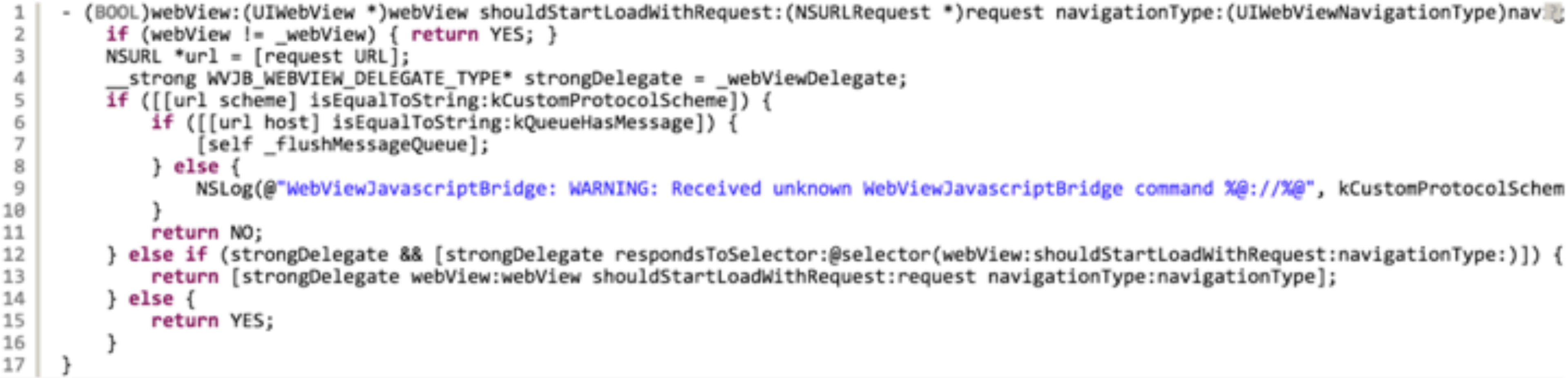
第4步



```
function _dispatchMessageFromObjC(messageJSON) {
    setTimeout(function _timeoutDispatchMessageFromObjC() {
        var message = JSON.parse(messageJSON)
        var messageHandler
        var responseCallback

        if (message.responseId) {
            responseCallback = responseCallbacks[message.responseId]
            if (!responseCallback) { return; }
            responseCallback(message.responseData)
            delete responseCallbacks[message.responseId]
        } else {
            if (message.callbackId) {
                var callbackResponseId = message.callbackId
                responseCallback = function(responseData) {
                    _doSend({ responseId:callbackResponseId, responseData:responseData })
                }
            }

            var handler = WebViewJavascriptBridge._messageHandler
            if (message.handlerName) {
                handler = messageHandlers[message.handlerName]
            }

            try {
                handler(message.data, responseCallback)
            } catch(exception) {
                if (typeof console != 'undefined') {
                    console.log("WebViewJavascriptBridge: WARNING: javascript handler threw.", message, exception)
                }
            }
        }
    })
}
```

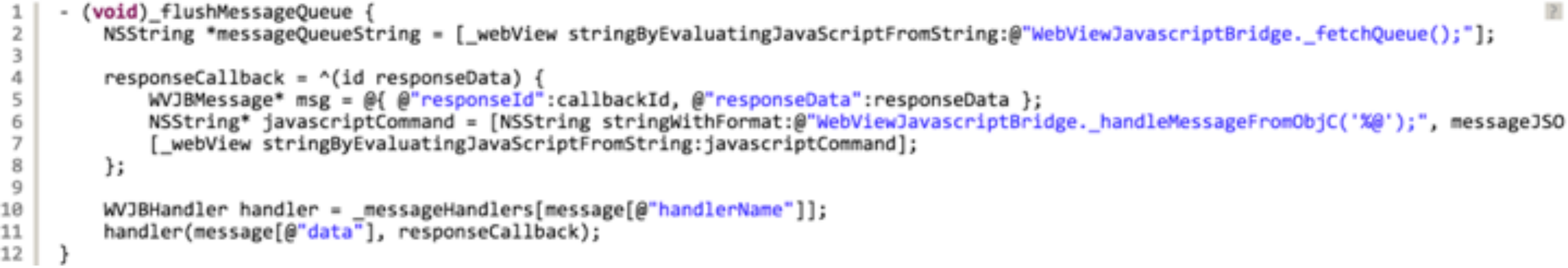
Objc Bridge

第2步



```
- (BOOL)webView:(UIWebView *)webView shouldStartLoadWithRequest:(NSURLRequest *)request navigationType:(UIWebViewNavigationType)nav
    if (webView != _webView) { return YES; }
    NSURL *url = [request URL];
    __strong WVJB_WEBVIEW_DELEGATE_TYPE* strongDelegate = _webViewDelegate;
    if ([[url scheme] isEqualToString:kCustomProtocolScheme]) {
        if ([[url host] isEqualToString:kQueueHasMessage]) {
            [self _flushMessageQueue];
        } else {
            NSLog(@"WebViewJavascriptBridge: WARNING: Received unknown WebViewJavascriptBridge command %@://%@", kCustomProtocolSchem
        }
        return NO;
    } else if (strongDelegate && [strongDelegate respondsToSelector:@selector(webView:shouldStartLoadWithRequest:navigationType:)]) {
        return [strongDelegate webView:webView shouldStartLoadWithRequest:request navigationType:navigationType];
    } else {
        return YES;
    }
}
```

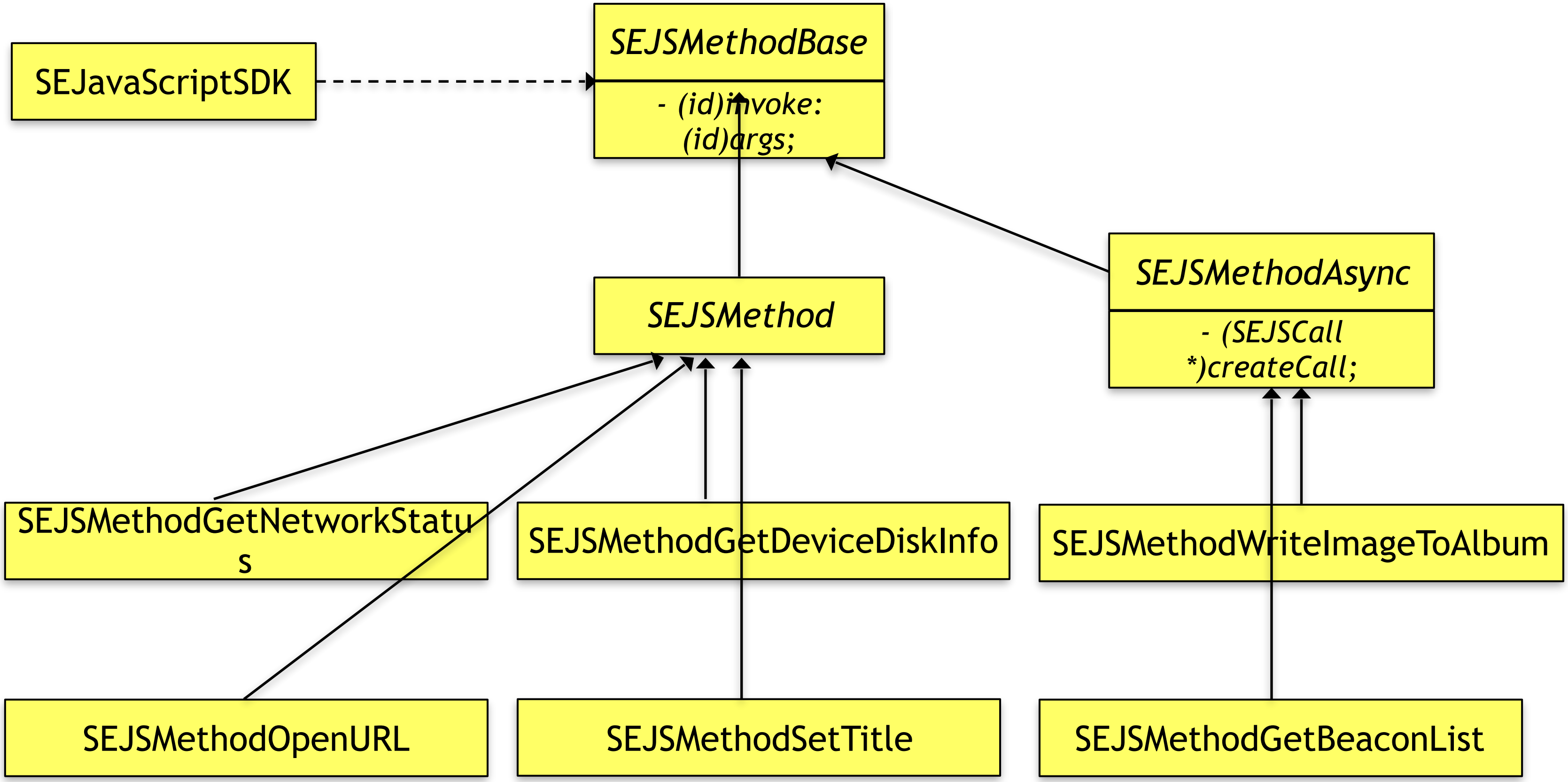
第3步



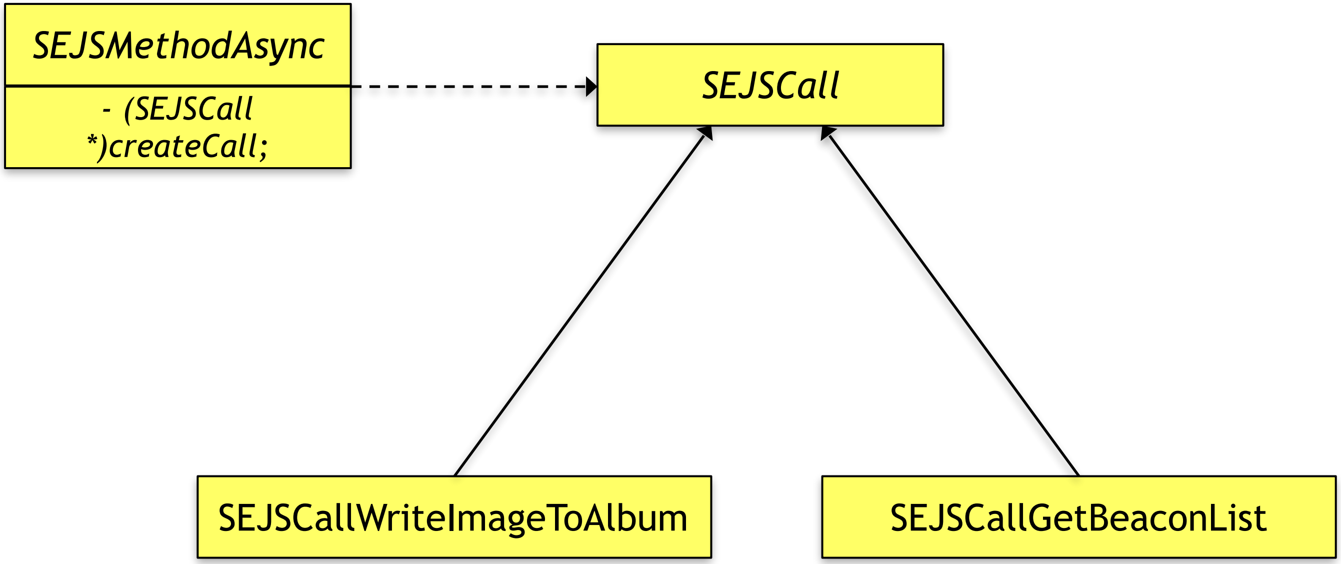
```
- (void)_flushMessageQueue {
    NSString *messageQueueString = [_webView stringByEvaluatingJavaScriptFromString:@"WebViewJavascriptBridge._fetchQueue();"];

    responseCallback = ^(id responseData) {
        WVJBMessage* msg = @{ @"responseId":callbackId, @"responseData":responseData };
        NSString* javascriptCommand = [NSString stringWithFormat:@"WebViewJavascriptBridge._handleMessageFromObjC('%@');", messageJSO
        [_webView stringByEvaluatingJavaScriptFromString:javascriptCommand];
    };

    WVJBHandler handler = _messageHandlers[message[@"handlerName"]];
    handler(message[@"data"], responseCallback);
}
```

_messageHandlers: 方法映射

Objc Bridge设计模型



Objc Bridge设计模型



SEJSMethodAsync

*- (SEJSCall *)createCall;*

SEJSCall

SEJSCallWriteImageToAlbum

SEJSCallGetBeaconList

如何扩展新功能

TODO List

- 支持JavaScriptScore，性能更好
- 支持WKWebView
- 接口模块化