父子页面之间跨域通信的方法

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摘要: 由于同源策略的限制，JavaScript跨域的问题，一直是一个比较棘手的问题，为了解决页面之间的跨域通信，大家煞费苦心，研究了各种跨域方案。之前也有小网同学分享过一篇“跨域，不再纠结” 开始照着尝试时还是有些不 ...

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| 由于同源策略的限制，JavaScript跨域的问题，一直是一个比较棘手的问题，为了解决页面之间的跨域通信，大家煞费苦心，研究了各种跨域方案。之前也有小网同学分享过一篇“[跨域，不再纠结](http://tid.tenpay.com/?p=2002)” 开始照着尝试时还是有些不够明白的地方，深入了解之后，这里给大家补充一点更具体的做法。  <http://www.lupaworld.com/data/attachment/portal/201408/12/094005bo43wt55p7w5xt54.jpg>  　　先来看看哪些情况下才存在跨域的问题：   |  |  |  |  | | --- | --- | --- | --- | | **编号** | **URL** | **说明** | **是否允许通信** | | 1 | <http://www.a.com/a.js><http://www.a.com/b.js> | 同一域名下 | 允许 | | 2 | <http://www.a.com/lab/a.js><http://www.a.com/script/b.js> | 同一域名下不同文件夹 | 允许 | | 3 | <http://www.a.com:8000/a.js><http://www.a.com/b.js> | 同一域名，不同端口 | 不允许 | | 4 | <http://www.a.com/a.js><https://www.a.com/b.js> | 同一域名，不同协议 | 不允许 | | 5 | <http://www.a.com/a.js><http://70.32.92.74/b.js> | 域名和域名对应ip | 不允许 | | 6 | <http://www.a.com/a.js><http://script.a.com/b.js> | 主域相同，子域不同 | 不允许 | | 7 | <http://www.a.com/a.js> <http://a.com/b.js> | 同一域名，不同二级域名（同上） | 不允许（cookie这种情况下也不允许访问） | | 8 | <http://www.a.com/a.js><http://www.b.com/b.js> | 不同域名 | 不允许 |   　　其中编号6、7两种情况同属于主域名相同的情况，可以设置domain来解决问题，今天就不讨论这种情况了。 对于其他跨域通信的问题，我想又可以分成两类，**其一（第一种情况）**是a.com下面的a.js试图请求b.com下某个接口时产生的跨域问题。**其二（第二种情况）**是当a.com与b.com下面的页面成父子页面关系时试图互相通信时产生的跨域问题，典型的应用场景如a.com/a.html使用iframe内嵌了b.com/b.html，大家都知道a.html内的js脚本试图访问b.html时是会被拒绝的，反之亦然。 **第一种情况**，目前主流的方案是JSONP，高版本浏览器支持html5的话，还可以使用XHR2支持跨域通信的新特性。 **第二种情况**，目前主要是通过代理页面或者使用postMessageAPI来做，**这也是今天要讨论的话题。** 第二种情况，有这样一些类似的案例：a.com/a.html使用iframe内嵌了b.com/b.html，现在希望iframe的高度能自动适应b.html的高度，使iframe不要出现滚动条。我们都知道跨域了，a.html是没办法直接读取到b.html的高度的，b.html也没办法把自己的高度告诉a.html。 直接说可以用代理页面的方法搞定这个问题吧，但是怎么代理法，先来看下面这张图：  <http://www.lupaworld.com/data/attachment/portal/201408/12/094005teqi2zscceif734q.png>   图1    　　b.html与a.html是不能直接通信的。我们可以在b.html下面再iframe内嵌一个proxy.html页面，因为这个页面是放在a.com下面的，与a.html同域，所以它其实是可以和a.html直接通信的，假如a.html里面有定义一个方法\_callback，在proxy.html可以直接top.\_callback()调用它。但是b.html本身和proxy.html也是不能直接通信的，所谓代理页面的桥梁作用怎么实现呢? b.html内嵌proxy.html是通过一段类似下面这样的代码： <iframe id=”proxy” src=”a.com/proxy.html” name=”proxy” frameborder=”0″ width=”0″ height=”0″></iframe> 这个iframe的src属性b.html是有权限控制的。如果它把src设置成a.com/proxy.html?args=XXX,也就是给url加一个查询字符串，proxy.html内的js是可以读取到的。对的，这个url的查询字符串就是b.html和proxy.html之间通信的桥梁，美中不足的是每次通信都要重写一次url造成一次网络请求，这有时会对服务器及页面的运行效率产生很大的影响。同时由于参数是通过url来传递的，会有长度和数据类型的限制，搜集的资料显示：   * IE浏览器对URL的长度现限制为2048字节。 * 360极速浏览器对URL的长度限制为2118字节。 * Firefox(Browser)对URL的长度限制为65536字节。 * Safari(Browser)对URL的长度限制为80000字节。 * Opera(Browser)对URL的长度限制为190000字节。 * Google(chrome)对URL的长度限制为8182字节。   　　上面的方法，通过迂回战术实现了b.html跟a.html通信，但是倒过来，a.html怎么跟b.html通信呢?嵌入在b.html里面的proxy.html可以用top快速的联系上a.html，但是要想让a.html找到proxy.html就不容易了，夹在中间的 b.html生生把它们分开了，a.html没法让b.html去找到proxy.html然后返回给它。只能采用更迂回的战术了。 顺着前面b.html到a.html的通信过程，逆向的想一下，虽然a.html没有办法主动找到proxy.html，但是proxy.html可以反过来告诉a.html它在哪里： 在proxy.html加这么一段脚本：   |  |  | | --- | --- | | 1 | var topWin = top; | | 2 | function getMessage(data) { | |  |  |  |  | | --- | --- | --- | | 3 | alert("messageFormTopWin:" + data); | | | 4 | } |  |  |  | | --- | --- | | 5 | function sendMessage(data) { | | 6 | topWin.proxyWin = window; | |  |  |  |  | | --- | --- | --- | | 7 | topWin.getMessage(data); | | | 8 | } |   　　在a.html加这么一段脚本：   |  |  | | --- | --- | | 01 | var proxyWin = null; | | 02 | function getMessage(data) { | |  |  |  | | --- | --- | | 03 | alert("messageFormProxyWin:"+data); | | 04 | sendMessage("top has receive data:"+data); | |  |  |  | | --- | --- | | 05 | } | | 06 |  | |  |  |  | | --- | --- | | 07 | function sendMessage(data) { | | 08 | if (null != proxyWin) { | |  |  |  |  | | --- | --- | --- | | 09 | proxyWin.getMessage(data); | | | 10 | } |  |  |  | | --- | --- | | 11 | } |   　　也就是必须由proxy.html先主动发送一个消息给a.html，a.html得到proxy.html页面window的引用，就可以反过来向它发送请求了。 现在a.html可以把消息发给proxy.html了，但是proxy.html怎么把消息转送到b.html？似乎这才是难点，因为它们之间才真正有着“跨域”这一道鸿沟。 这回我们不再用前面那个iframe内嵌代理页面的方法再在proxy.html内嵌一个b.com下面的代理页面了，这样实在会给人感觉嵌的太深了，四层。但是为了跨越这道鸿沟，b.com下面也加一个代理页面是免不的。不过现在我们要利用一下window.name。window.name有一个特性，就是页面在同一个浏览器窗口（标签页）中跳转时，它一直存在而且值不会改变。比如我们在a.html中设置了window.name=”a”,然后location.href=”<http://b.com/b.html>”跳转后，b.html可以读取window.name的值为”a”;而且window.name的值长度一般可以到达2M，ie和firefox甚至可以达到32M，这样的存储容量，足够利用起来做跨域的数据传递了。好吧，我们现在要做的就是当proxy.html拿到a.html发送过来的数据后把这个数据写入window.name中，然后跳转到b.com下面的代理页面，我们这里假设是bproxy.html。bproxy.html读取到window.name值后，通知给它父页面b.html就简单了。我们再来看这个过程可以用图大概示意一下：  <http://www.lupaworld.com/data/attachment/portal/201408/12/094006jacccc2cayy7rzxc.png>   图2  　　图例中绿色的双向箭头表示可以通信，橙色的双向箭头表示不能直接通信。 最后我们简单看一下双向通信的实测效果：  <http://www.lupaworld.com/data/attachment/portal/201408/12/094022p7688q8ziqrazss0.png>   图3  　　b.html每次加载的时候都先给a.html发一个”连接请求”，让a.html可以找到proxy.html。所以页面第一次加载的时候会产生三个请求：  <http://www.lupaworld.com/data/attachment/portal/201408/12/094034t2l5rfl88lmctkfy.png>   图4  　　每次b.html向a.html发送消息的时候会产生一个请求：  <http://www.lupaworld.com/data/attachment/portal/201408/12/094046l8r5nkkwznwmvbqv.png>   图5  　　每次a.html向b.html发送消息的时候会产生两个请求，其中一个是a.com/proxy.html向b.com/bproxy.html跳转产生的，另一个是b.html重新向a.html发起“连接请求”时产生的：  <http://www.lupaworld.com/data/attachment/portal/201408/12/094054onc43czcymcqzyyy.png>   图6  　　最后简单看一下实测的几个测试页面代码： **代码片段一，a.com/a.html:**   |  |  |  | | --- | --- | --- | | 01 | <html xmlns="<http://www.w3.org/1999/xhtml>"> | | | 02 | <head> |  |  |  |  | | --- | --- | --- | | 03 | <title>a.com</title> | | | 04 | </head> |  |  |  | | --- | --- | | 05 | <body> | | 06 | <div id="Div1"> | |  |  |  | | --- | --- | | 07 | A.com/a.html</div> | | 08 | <input id="txt\_msg" type="text" /> | |  |  |  |  | | --- | --- | --- | | 09 | <input id="Button1" type="button" value="向b.com/b.html发送一条消息"onclick="sendMessage(document.getElementById('txt\_msg').value)" /> | | | 10 | <div id="div\_msg"> |  |  |  | | --- | --- | | 11 | </div> | | 12 | <iframe width="800" height="400" id="mainFrame" src="<a href="<http://localhost:8091/b.com/b.htm>">[http://localhost:8091/b.com/b.htm</](http://localhost:8091/b.com/b.htm%3C/)a>"> | |  |  |  | | --- | --- | | 13 | </iframe> | | 14 | <script type="text/javascript"> | |  |  |  | | --- | --- | | 15 | var proxyWin = null; | | 16 | function showMsg(msg) { | |  |  |  |  | | --- | --- | --- | | 17 | document.getElementById("div\_msg").innerHTML = msg; | | | 18 | } |  |  |  | | --- | --- | | 19 | function getMessage(data) { | | 20 | showMsg("messageForm b.html to ProxyWin:" + data); | |  |  |  | | --- | --- | | 21 | } | | 22 | function sendMessage(data) { | |  |  |  | | --- | --- | | 23 | if (null != proxyWin) { | | 24 | proxyWin.getMessage(data); | |  |  |  |  | | --- | --- | --- | | 25 | } | | | 26 | } |  |  |  |  | | --- | --- | --- | | 27 | </script> | | | 28 | </body> |  |  |  | | --- | --- | | 29 | </html> |   **代码片段二，a.com/proxy.html:**   |  |  |  | | --- | --- | --- | | 01 | <html xmlns="<a href="<http://www.w3.org/1999/xhtml>">[http://www.w3.org/1999/xhtml</](http://www.w3.org/1999/xhtml%3C/)a>"> | | | 02 | <head> |  |  |  |  | | --- | --- | --- | | 03 | <title>a.com</title> | | | 04 | </head> |  |  |  | | --- | --- | | 05 | <body> | | 06 | <div id="Div1">A.com/proxy.html</div> | |  |  |  | | --- | --- | | 07 | <div id="div\_msg"></div> | | 08 | <script type="text/javascript"> | |  |  |  | | --- | --- | | 09 | var topWin = top; | | 10 | function showMsg(msg) { | |  |  |  |  | | --- | --- | --- | | 11 | document.getElementById("div\_msg").innerHTML = msg; | | | 12 | } |  |  |  | | --- | --- | | 13 |  | | 14 | function getMessage(data) { | |  |  |  |  | | --- | --- | --- | | 15 | showMsg("messageForm A.com/a.html:" + data + "<br/>两¢?秒?后¨®将?跳¬?转Áa到Ì?B.com/bproxy.html"); | | | 16 | window.name = data; |  |  |  |  | | --- | --- | --- | | 17 | setTimeout(function () { location.href = "<a href="http://localhost:8091/b.com/bproxy.htm">[http://localhost:8091/b.com/bproxy.htm</a](http://localhost:8091/b.com/bproxy.htm%3C/a)>" }, 2000);// 为了能让大家看到跳转的过程，所以加了个延时 | | | 18 | } |  |  |  | | --- | --- | | 19 |  | | 20 | function sendMessage(data) { | |  |  |  |  | | --- | --- | --- | | 21 | topWin.proxyWin = window; | | | 22 | topWin.getMessage(data); |  |  |  |  | | --- | --- | --- | | 23 | } | | | 24 |  |  |  |  | | --- | --- | | 25 | var search = location.search.substring(1); | | 26 | showMsg("messageForm B.com/b.html:" + search); | |  |  |  |  | | --- | --- | --- | | 27 | sendMessage(search); | | | 28 | </script> |  |  |  | | --- | --- | | 29 | </body> | | 30 | </html> |   **代码片段三，b.com/b.html**   |  |  |  | | --- | --- | --- | | 01 | <html xmlns="<a href="<http://www.w3.org/1999/xhtml>">[http://www.w3.org/1999/xhtml</](http://www.w3.org/1999/xhtml%3C/)a>"> | | | 02 | <head> |  |  |  |  | | --- | --- | --- | | 03 | <title>b.com</title> | | | 04 | </head> |  |  |  | | --- | --- | | 05 | <body> | | 06 | <div id="Div1"> | |  |  |  | | --- | --- | | 07 | B.com/b.html</div> | | 08 | <input id="txt\_msg" type="text" /> | |  |  |  |  | | --- | --- | --- | | 09 | <input id="Button1" type="button" value="向A.com/a.html发送一条消息"onclick="sendMessage(document.getElementById('txt\_msg').value)" /> | | | 10 | <div id="div\_msg"> |  |  |  | | --- | --- | | 11 | </div> | | 12 | <iframe id="proxy" name="proxy" style="width: 600px; height: 300px"></iframe> | |  |  |  | | --- | --- | | 13 | <script type="text/javascript"> | | 14 | function showMsg(msg) { | |  |  |  |  | | --- | --- | --- | | 15 | document.getElementById("div\_msg").innerHTML = msg; | | | 16 | } |  |  |  | | --- | --- | | 17 | function sendMessage(data) { | | 18 | var proxy = document.getElementById("proxy"); | |  |  |  |  | | --- | --- | --- | | 19 | proxy.src="<a href="http://localhost:8090/a.com/proxy.htm?data">[http://localhost:8090/a.com/proxy.htm?data</a](http://localhost:8090/a.com/proxy.htm?data%3C/a)>=" + data; | | | 20 | } |  |  |  | | --- | --- | | 21 | function connect() { | | 22 | sendMessage("connect"); | |  |  |  | | --- | --- | | 23 | } | | 24 | function getMessage(data) { | |  |  |  |  | | --- | --- | --- | | 25 | showMsg("messageForm a.html to ProxyWin:" + data); | | | 26 | connect(); |  |  |  |  | | --- | --- | --- | | 27 | } | | | 28 |  |  |  |  |  | | --- | --- | --- | | 29 | connect(); // 页面一加载，就执行一次连接 | | | 30 | </script> |  |  |  | | --- | --- | | 31 | </body> | | 32 | </html> |   **代码片段四，b.com/bproxy.html**   |  |  |  | | --- | --- | --- | | 01 | <html xmlns="<a href="<http://www.w3.org/1999/xhtml>">[http://www.w3.org/1999/xhtml</](http://www.w3.org/1999/xhtml%3C/)a>"> | | | 02 | <head> |  |  |  |  | | --- | --- | --- | | 03 | <title>b.com</title> | | | 04 | </head> |  |  |  | | --- | --- | | 05 | <body> | | 06 | <div id="Div1"> | |  |  |  |  | | --- | --- | --- | | 07 | B.com/bproxy.html</div> | | | 08 | <div id="div\_msg"> |  |  |  | | --- | --- | | 09 | </div> | | 10 | <script type="text/javascript"> | |  |  |  |  | | --- | --- | --- | | 11 | var parentWin = parent; | | | 12 | var data = null; |  |  |  | | --- | --- | | 13 |  | | 14 | function getMessage() { | |  |  |  | | --- | --- | | 15 | if (window.name) { | | 16 | data = window.name; | |  |  |  |  | | --- | --- | --- | | 17 | parentWin.getMessage(data); | | | 18 | } |  |  |  |  | | --- | --- | --- | | 19 | document.getElementById("div\_msg").innerHTML = "messageForm a.com/proxy.html:" + data; | | | 20 |  |  |  |  | | --- | --- | | 21 | } | | 22 | getMessage(); | |  |  |  |  | | --- | --- | --- | | 23 | </script> | | | 24 | </body> |  |  |  | | --- | --- | | 25 | </html> |   　　好吧，现在我必须把话锋调转一下了。前面讲的这么多，也只是抛出来一些之前我们可能会采用的跨域通信方法，事实上代理页面、url传参数和window.name、甚至还有一些利用url的hash值的跨域传值方法，都能百度到不少相关资料。但它们都逃不开代理页面，也就不可避免的要产生网络请求，而事实上这并不是我们的本意，我们原本希望它们能够直接在客户端通信，避免不必要的网络请求开销——这些开销，在访问量超大的站点可能会对服务器产生相当大的压力。那么，有没有更完美一点的替代方案呢？ 必须给大家推荐postMessage。postMessage 正是为了满足一些合理的、不同站点之间的内容能在浏览器端进行交互的需求而设计的。利用postMessage API实现跨域通信非常简单，我们直接看一下实例的代码： **代码片段五，A.com/a.html：**   |  |  |  | | --- | --- | --- | | 01 | <html xmlns="<a href="<http://www.w3.org/1999/xhtml>">[http://www.w3.org/1999/xhtml</](http://www.w3.org/1999/xhtml%3C/)a>"> | | | 02 | <head runat="server"> |  |  |  | | --- | --- | | 03 | <title>A.com/a.html</title> | | 04 | <script type="text/javascript"> | |  |  |  |  | | --- | --- | --- | | 05 | var trustedOrigin = "<a href="http://localhost:8091/">http://localhost:8091</a>"; | | | 06 |  |  |  |  | | --- | --- | | 07 | function messageHandler(e) { | | 08 | if (e.origin == trustedOrigin) {//接收消息的时候，判断消息是否来自可信的源，这个源是否可信则完全看自己的定义了。 | |  |  |  |  | | --- | --- | --- | | 09 | showMsg(e.data);//e.data才是真实要传递的数据 | | | 10 | } else { |  |  |  |  | | --- | --- | --- | | 11 | // ignore messages from other origins | | | 12 | } |  |  |  |  | | --- | --- | --- | | 13 | } | | | 14 |  |  |  |  | | --- | --- | | 15 | function sendString(s) {//发送消息 | | 16 | document.getElementById("widget").contentWindow.postMessage(s, trustedOrigin); | |  |  |  |  | | --- | --- | --- | | 17 | } | | | 18 |  |  |  |  | | --- | --- | | 19 | function showMsg(message) { | | 20 | document.getElementById("status").innerHTML = message; | |  |  |  |  | | --- | --- | --- | | 21 | } | | | 22 |  |  |  |  | | --- | --- | | 23 | function sendStatus() { | | 24 | var statusText = document.getElementById("statusText").value; | |  |  |  |  | | --- | --- | --- | | 25 | sendString(statusText); | | | 26 | } |  |  |  | | --- | --- | | 27 |  | | 28 | function loadDemo() { | |  |  |  |  | | --- | --- | --- | | 29 | addEvent(document.getElementById("sendButton"), "click", sendStatus); | | | 30 | sendStatus(); |  |  |  |  | | --- | --- | --- | | 31 | } | | | 32 |  |  |  |  | | --- | --- | | 33 | function addEvent(obj, trigger, fun) { | | 34 | if (obj.addEventListener) obj.addEventListener(trigger, fun, false); | |  |  |  |  | | --- | --- | --- | | 35 | else if (obj.attachEvent) obj.attachEvent('on' + trigger, fun); | | | 36 | else obj['on' + trigger] = fun; |  |  |  | | --- | --- | | 37 | } | | 38 | addEvent(window, "load", loadDemo); | |  |  |  |  | | --- | --- | --- | | 39 | addEvent(window, "message", messageHandler); | | | 40 |  |  |  |  |  | | --- | --- | --- | | 41 | </script> | | | 42 | </head> |  |  |  | | --- | --- | | 43 | <body> | | 44 | <h1>A.com/a.html</h1> | |  |  |  |  | | --- | --- | --- | | 45 | <p><b>源</b>: <a href="http://localhost:8090</p">http://localhost:8090</p</a>> | | | 46 | <input type="text" id="statusText" value="msg from a.com/a.html"> |  |  |  | | --- | --- | | 47 | <button id="sendButton">向b.com/b.html发送消息</button> | | 48 | <p>接收到来自a.com/a.html的消息: <strong id="status"></strong>.<p> | |  |  |  |  | | --- | --- | --- | | 49 | <iframe id="widget" width="800" height="400" src="<a href="<http://localhost:8091/PostMessage/Default.aspx%22%3E%3C/iframe>"><http://localhost:8091/PostMessage/Default.aspx>"></iframe</a>> | | | 50 | </body> |  |  |  | | --- | --- | | 51 | </html> |   **代码片段六，B.com/b.html：**   |  |  |  | | --- | --- | --- | | 01 | <html xmlns="<a href="<http://www.w3.org/1999/xhtml>">[http://www.w3.org/1999/xhtml</](http://www.w3.org/1999/xhtml%3C/)a>"> | | | 02 | <head runat="server"> |  |  |  | | --- | --- | | 03 | <title>B.com/b.html</title> | | 04 | <script type="text/javascript"> | |  |  |  |  | | --- | --- | --- | | 05 | //检查postMessage 是否可以用：window.postMessage===undefined | | | 06 | //定义信任的消息源 |  |  |  |  | | --- | --- | --- | | 07 | var trustedOrigin = "<a href="http://localhost:8090/">http://localhost:8090</a>"; | | | 08 | function messageHandler(e) { |  |  |  |  | | --- | --- | --- | | 09 | if (e.origin === "<a href="http://localhost:8090/">http://localhost:8090</a>") { | | | 10 | showMsg(e.data); |  |  |  | | --- | --- | | 11 | } else { | | 12 | // ignore messages from other origins | |  |  |  |  | | --- | --- | --- | | 13 | } | | | 14 | } |  |  |  | | --- | --- | | 15 |  | | 16 | function sendString(s) { | |  |  |  |  | | --- | --- | --- | | 17 | window.top.postMessage(s, trustedOrigin); //第二个参数是消息传送的目的地 | | | 18 | } |  |  |  | | --- | --- | | 19 |  | | 20 | function loadDemo() { | |  |  |  |  | | --- | --- | --- | | 21 | addEvent(document.getElementById("actionButton"), "click", function () { | | | 22 | var messageText = document.getElementById("messageText").value; |  |  |  |  | | --- | --- | --- | | 23 | sendString(messageText); | | | 24 | }); |  |  |  |  | | --- | --- | --- | | 25 | } | | | 26 |  |  |  |  | | --- | --- | | 27 | function showMsg(message) { | | 28 | document.getElementById("status").innerHTML = message; | |  |  |  |  | | --- | --- | --- | | 29 | } | | | 30 |  |  |  |  | | --- | --- | | 31 | function addEvent(obj, trigger, fun) { | | 32 | if (obj.addEventListener) obj.addEventListener(trigger, fun, false); | |  |  |  |  | | --- | --- | --- | | 33 | else if (obj.attachEvent) obj.attachEvent('on' + trigger, fun); | | | 34 | else obj['on' + trigger] = fun; |  |  |  | | --- | --- | | 35 | } | | 36 | addEvent(window, "load", loadDemo); | |  |  |  |  | | --- | --- | --- | | 37 | addEvent(window, "message", messageHandler); | | | 38 | </script> |  |  |  |  | | --- | --- | --- | | 39 | </head> | | | 40 | <body> |  |  |  | | --- | --- | | 41 | <h1>B.com/b.html</h1> | | 42 | <p><b>源</b>: <a href="http://localhost:8091</p">http://localhost:8091</p</a>> | |  |  |  |  | | --- | --- | --- | | 43 | <p>接收到来自a.com/a.html的消息: <strong id="status"></strong>.<p> | | | 44 | <div> |  |  |  |  | | --- | --- | --- | | 45 | <input type="text" id="messageText" value="msg from b.com/b.html"> | | | 46 | <button id="actionButton"> 向a.com/a.html发送一个消息</button> |  |  |  |  | | --- | --- | --- | | 47 | </div> | | | 48 | </body> |  |  |  | | --- | --- | | 49 | </html> |   　　代码的关键是message事件是一个拥有data（数据）和origin(来源)属性的DOM事件。data属性是发送的实际数据，origin属性是发送来源。Origin属性很关键，有了这个属性，接收方可以轻易的忽略掉来自不可信源的消息，也就能有效避免跨域通信这个开口给我们的源安全带来的隐患。接口很强大，所以代码很简单。我们可以抓包看一下，这个通信过程完全是在浏览器端的，没有产生任何的网络请求。同时这个接口目前已经得到了绝大多数浏览器的支持，包括IE8及以上版本，参见下面的图表：  <http://www.lupaworld.com/data/attachment/portal/201408/12/094106m99gakkxrcjmszfm.png>  图7  　　但是为了覆盖ie6等低版本浏览器，我们完整的方案里面还是要包含一下兼容代码，就是最开始介绍的代理页面的方法了，但必须是以postMessage为主，这样即便最后会有某些浏览器因为这种通信产生一些网络请求，比例也是非常低的了。 |