

L10n == Epic Fejl

Graham Lee, humble bug creator

```
NSString *message =  
LocalizedString(key, comment);
```



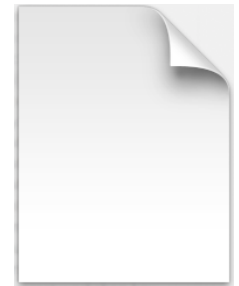
MyApp.app



Contents



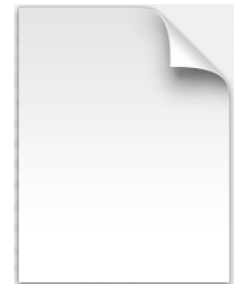
English.lproj



Localizable.strings



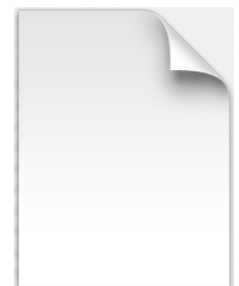
French.lproj



Localizable.strings



Japanese.lproj



Localizable.strings

```
$ cat /var/log/CDIS.custom  
LANGUAGE=Japanese  
$
```

```
defaultLanguage = "english";  
language =  
    parseCDIS():defaultLanguage;  
localeFolder = myPath() + language  
    + ".lproj";
```

```
(gdb)po language  
$1 = "japanese";
```

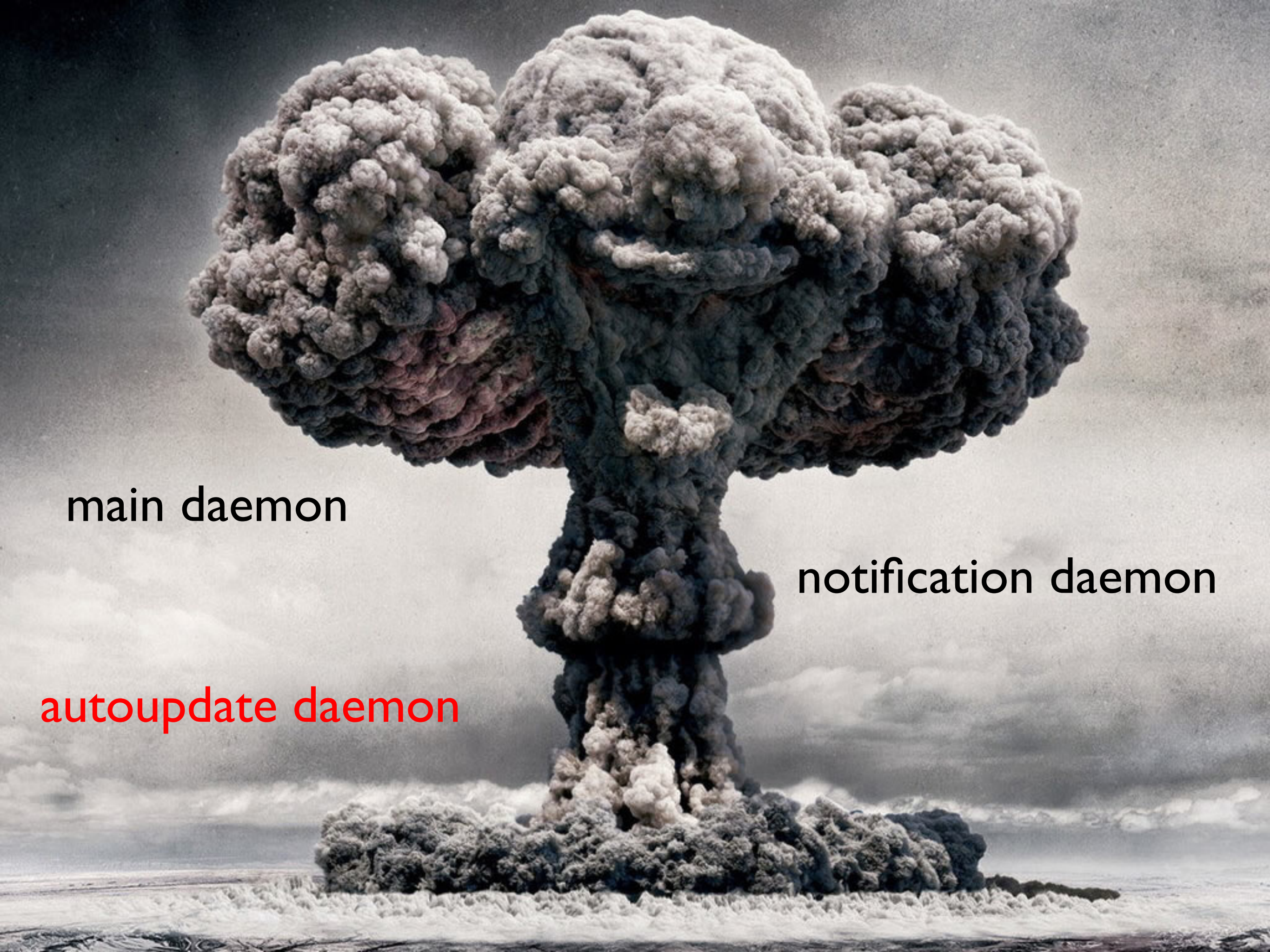


Japanese.lproj

```
TEST_CASE("choose_language", "It should  
pick the correct language to log") {  
    REQUIRE(parseCDISText("Language=French")  
        == "French");  
    REQUIRE(parseCDISText("Language=German")  
        == "German");  
    REQUIRE(parseCDISText("Language=Japanese")  
        == "Japanese");  
    ...  
    REQUIRE(parseCDISText(NULL) ==  
        "English");  
}
```

```
$ cat /var/log/CDIS.custom  
LANGUAGE=ja  
$
```

```
string parseCDISText(string content) {  
    string default = "English";  
    string[] fields = split(content,  
                             '=' );  
    return fields[1]?:default;  
}
```

main daemon

notification daemon

autoupdate daemon

Moral



Selenium Race Condition

What is Selenium?

- Selenium automates browsers
- Mostly used for automated testing of Web Applications / Sites
- We use it to test our HTML 5 web building editor, among other things
- It consists of
 - Selenium IDE – FF add-on to record and playback tests
 - Selenium RC – client/server system to control web browsers
 - WebDriver – system to control web browsers natively. WebDriver is the successor of Selenium RC. Available drivers -
 - Chrome Driver
 - Firefox Driver
 - Internet Explorer Driver
 - HtmlUnit Driver
 - Selenium Grid – allows running tests on many servers at the same time.

The Problem

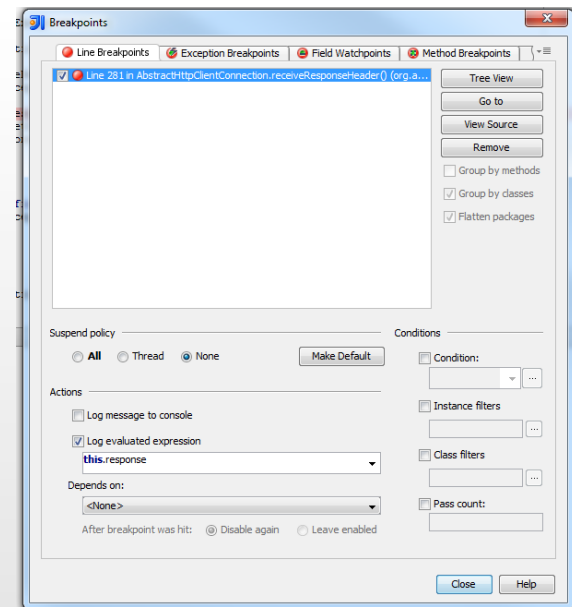
- When using the Chrome Driver, we started getting random `NoHttpResponseException`
- It looks like

```
org.openqa.selenium.WebDriverException:
org.apache.http.NoHttpResponseException:
The target server failed to respond
Build info: version: '2.6.0', revision: '13840', time: '2011-09-13
16:51:41' System info: os.name: 'Windows 7', os.arch: 'amd64', os.version:
'6.1', java.version: '1.6.0_26' Driver info: driver.version:
RemoteWebDriver
```

- Lots of information about the exception on the internet, but no solution
- Bug report opened for the issue on chrome site
 - <https://code.google.com/p/selenium/issues/detail?id=2513>
 - Bug report status changed to 'fixed' on Dec 11, 2011. However, there are still new reports of the problem
 - We don't know, we have a working workaround 😊

A Riddle

- Our initial guess was that we were doing something wrong with the WebDriver client API that caused the issue.
 - As it is a random issue, we need some trace to catch it.
 - The error is thrown by Apache HTTP Client, by the `HttpResponseParser` class.
 - The approach was to trace WebDriver communication
 - So we added a trace using IntelliJ “log evaluated expression” to print the request/response to WebDriver
- When we added the trace we did not reproduce the problem!
- When we removed the trace the problem reappeared!
- A Riddle...



Solution for a Riddle

- First – Disbelieve
 - How can it work with tracing and not without?
 - We're tracing somehow wrong...
- Then – Lets believe what our tests say
 - So, when we trace, it works
 - What is different when we trace?
 - It slows down the system. Not by much, but apparently, just enough.
 - WebDriver explodes when invoking it's API too fast
 - Smells like some race condition in Chrome WebDriver...
- The solution
 - If we believe what our tests say, we need to slow down the calls to WebDriver.
 - Lets try adding `Thread.Sleep(1);` between each WebDriver API call.
 - **Problem solved!!!**

What we finally did

- WebDriver remote API is provided by subclasses of RemoteWebDriver (such as ChromeDriver)
- It implements 11 different interfaces, specifying the full selenium API
- Using JDK.Proxy we wrapped the Web-Driver with an InvocationHandler that does the Thread.sleep(1);
- It looks like

```
public <T> T create(T original) {
    return (T) Proxy.newProxyInstance(this.getClass().getClassLoader(), getAllInterfaces(original),
        new DelayedDelegatingHandler<T>((T) original));
}

public Object invoke(Object proxy, Method method, Object[] args) throws Throwable {
    waitForSeleniumToSoberUp();
    .. Invoke the web-driver method ..
}

private void waitForSeleniumToSoberUp() {
    Thread.sleep(1);
}
```



copenhagen
goto;
conference

War Story

CACHE MISS

Itai Hochman
VP Engineering at Outbrain

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CONFERENCE

gotocon.com

The Ladder

THE MOST \$100K+ JOBS

White House defeats recovery chief

By Ed Henry, CNN Senior White House Correspondent
June 18, 2010 7:07 p.m. EDT

Navy Secretary Ray Mabus has been appointed by Obama to create a plan to help Gulf restoration efforts.

STORY HIGHLIGHTS

- Environmental group official says Ray Mabus should focus on Gulf 50th anniversary.
- But another calls his appointment great, says "Gulf is in good hands"
- President picked Navy Secretary to create long-term Gulf Coast restoration plan

former gave two jobs.

"The president agreed that"

But Cat Lazoff said it will be

"I think our old Lazoff said the person is

Another top Lazoff and part-time be

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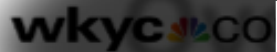
Is It All an Illusion? Quantum Physics, Time, and God fora.tv



'L-Word' Actress Kicked Off a Plane Mevio



25 Worst Passwords of 2011 [STUDY] Tech & Gadgets

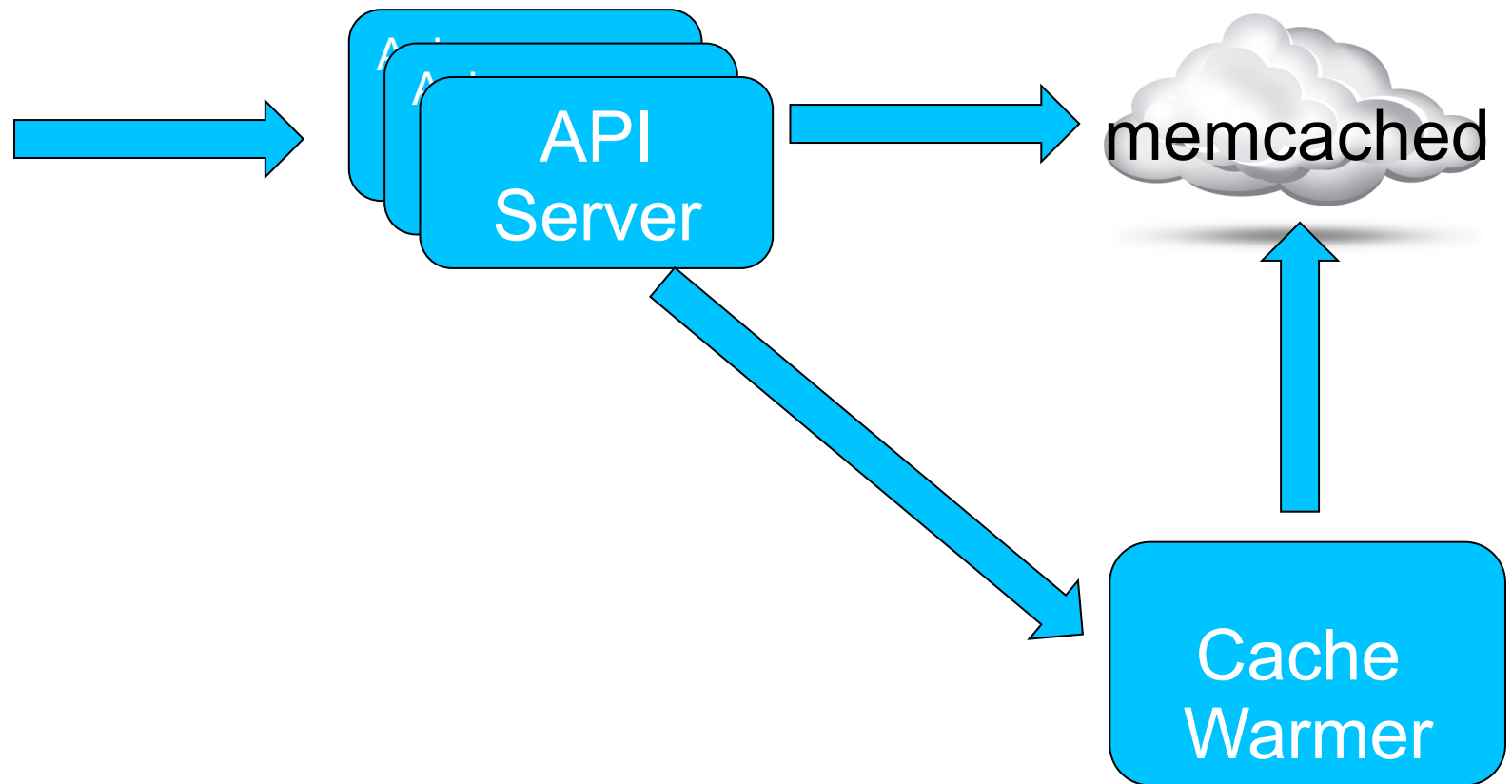


Multi Billion Page Views per month

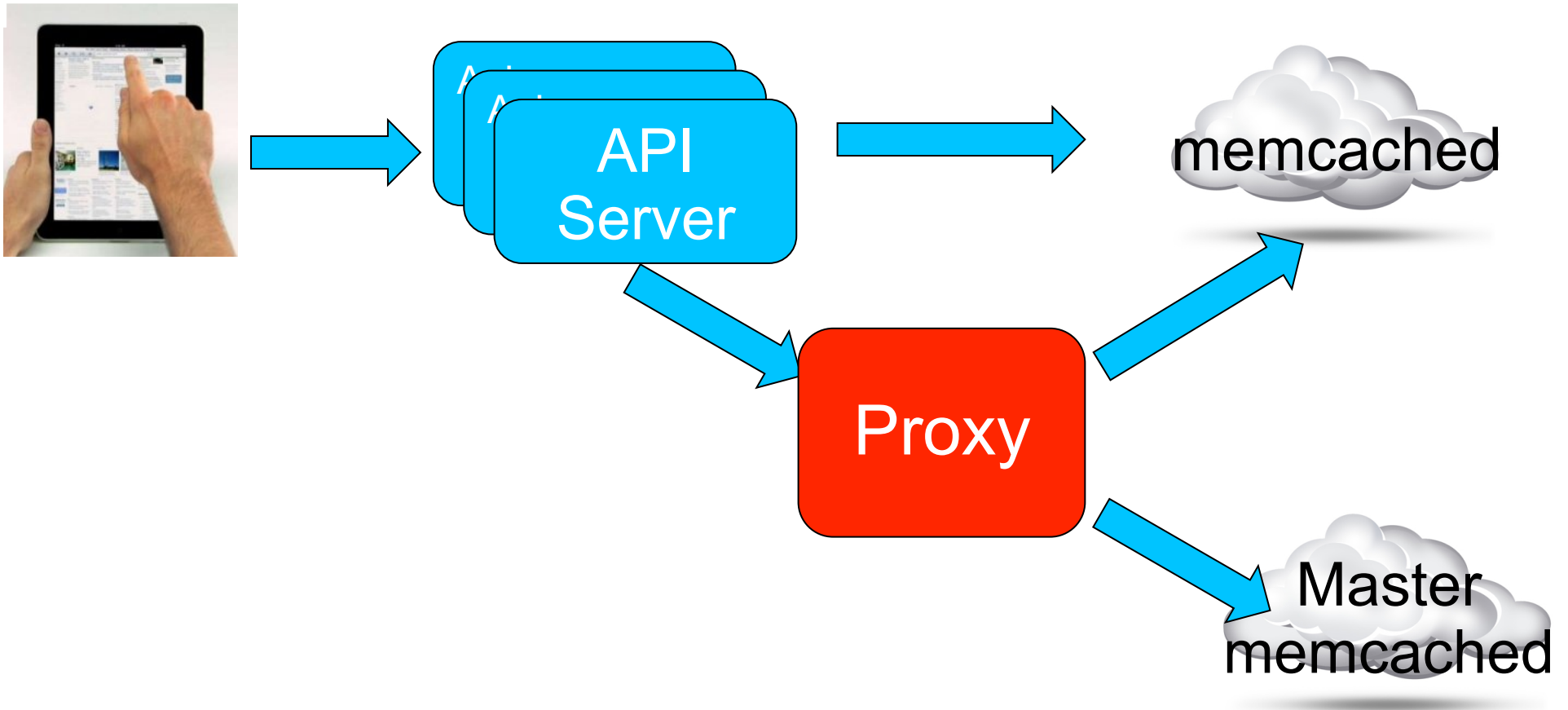


Note: Outbrain is typically installed on *every* article/blog post on each of these sites, immediately under the content

Master Data Center



Slave Data Center



Thumbnail Widget



Regis Philbin's
Farewell Nets
21,000 Comments
on Social Networks
[INFOGRAPHIC]
Entertainment



@MrsKutcher Files
For Divorce; @Aplus
K Turns to Chime.in
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Mashable



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'L-Word' Actress
Kicked Off a Plane
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Take-In

Cache Miss

How to Handle a cache miss

**Envelope Value with
Metadata**