

Why Mobile Apps Could Be Our Worst Enemy

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ENTERPRISE SECURITY



Abstract

Mobile apps are the hottest thing in IT these days. They've rapidly emerged for a range of constituents including the enterprise, consumers, sales reps, boards of directors -- and even infants. In the last 12 months alone, more than 400,000 mobile applications have been launched, and many of them were created by marketing teams -- not engineering groups. All of this means that security professionals need to be savvy about the threats they pose. Join us for this session as we explore mobile application security essentials. We'll examine the the three key layers that make up a mobile application, along with the top ten mobile app vulnerabilities that have surfaced in the last two years



Mobile Questions?

MMS

Management of the
Mobile device

What gets installed?

Policy Mapping

Who can go where?
See what?

VS

Mobile Code

Is the application Secure?

Bad stuff happen to the
Application on the device?

Can data be stolen?

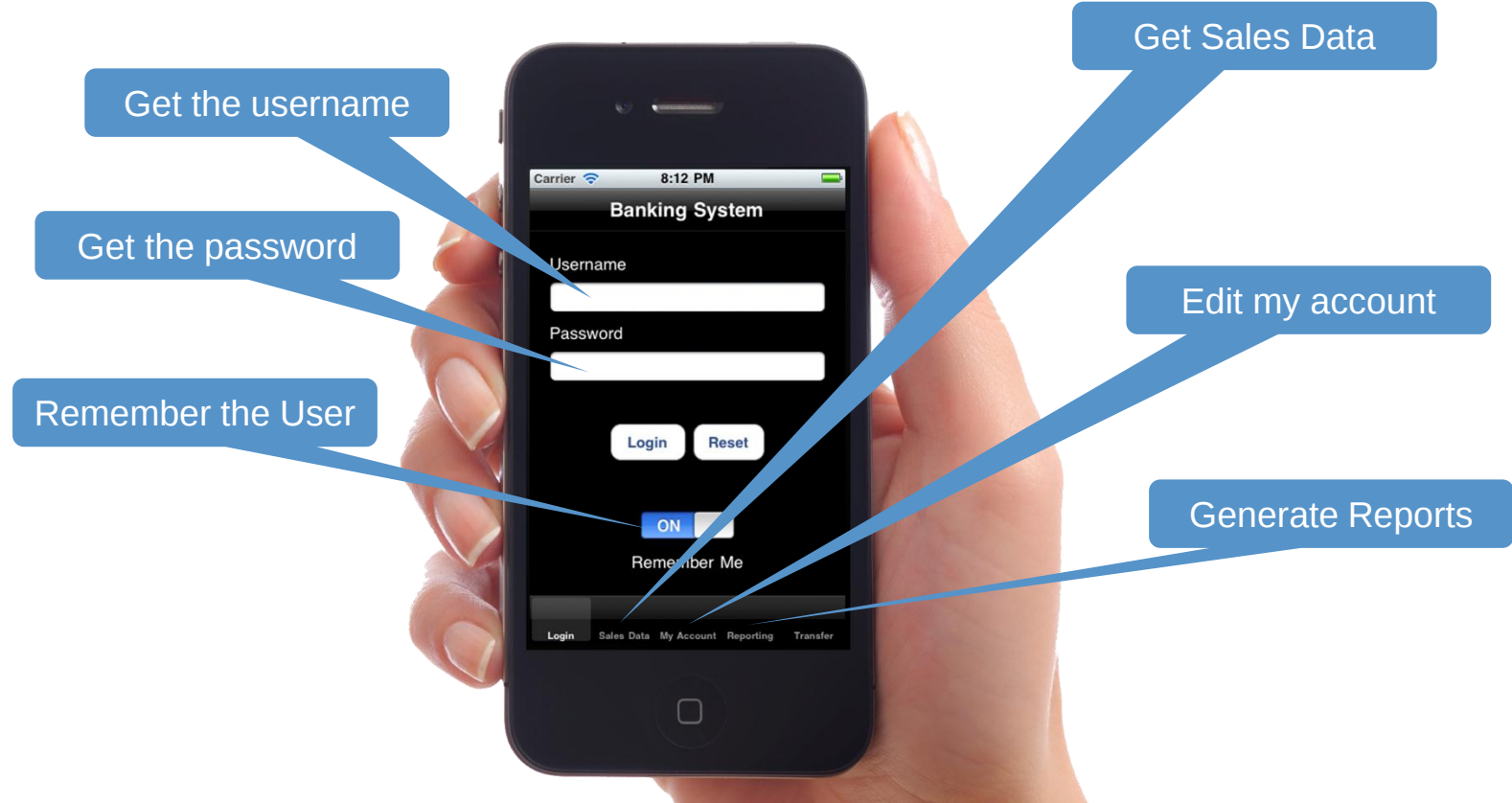
What's the "data" doing?

Mobile Application Security Challenges

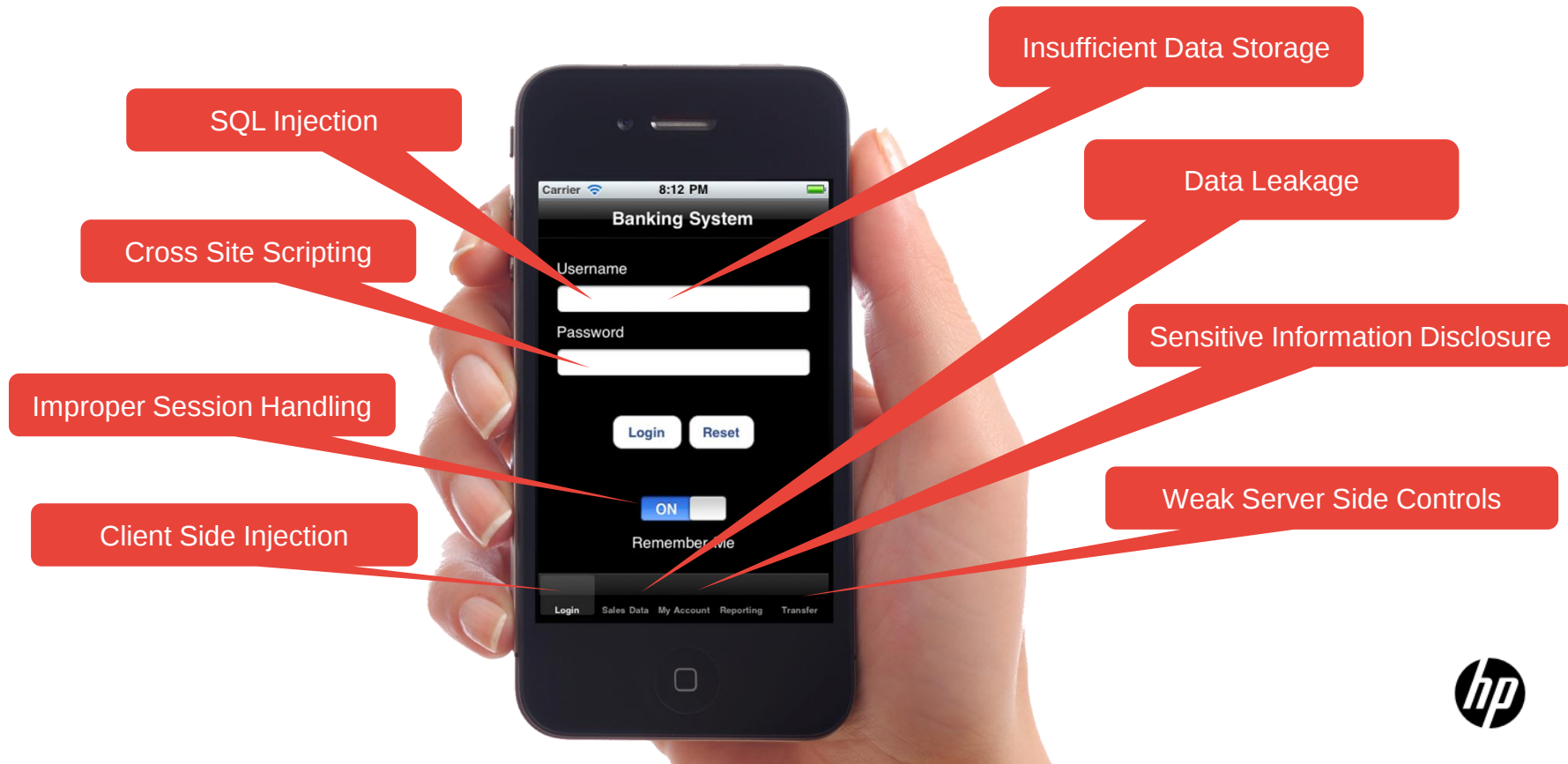
- Difficult to train and retain staff - very difficult to keep skills up-to-date
- Constantly changing environment
- New attacks constantly emerge
- Compliance Requirements
- Too many tools for various results
- Apps are getting launched on a daily basis with Security not being involved.
- Junior Developers are typically the ones creating the apps.



How you see your world



How an attacker sees your world



Real-world Mobile Incidents



citibank



facebook



PayPal



Bank of America.



**WELLS
FARGO**



Mobile banking: Will you be hacked?

A survey suggests more of us are nervous about using smartphones for banking. Is there reason to be? Plus: How to minimize the risks.

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You're in the store trying on a stunning but outrageously priced shirt. You have to have it, and your hand has already palmed your debit card — but wait! Did your mortgage payment clear your money market account yet?

You could whip out your smartphone and check your balance using your bank's app, and maybe make a quick transfer between accounts. If you access your

risk and fraud at Javelin Strategy and Research.

"All you need to do is use a little common sense."

MALWARE

First Drive-By Malware Sites Discovered for Android

As more and more traffic moves from the desktop to mobile devices, malware has closely followed it. Now, an Internet security firm has discovered the first websites designed specifically to infect Android devices that visit the page with malware.

Lookout Mobile Security discovered the sites, which operate as drive-by malware vectors.

Square's mobile payment system has been hacked. Twice.

Aug. 5, 2011 (1:43 pm) By: Lee Mathews



rights set on shaking up the industry. ce in Apple stores, and it's had no locked up more than \$100 million in

BY ANDREW TARANTOLA

MAY 3, 2012 1:20 AM

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Tweet

116

9,364 52

BlackBerry Bold.

See all your emails, social feeds, calls and



Mobile code has larger attack surface than Web Apps.



```
(void)viewDidLoad
```

```
// Add our custom add button as the nav bar's custom right view
```

```
UIBarButtonItem *addButton = [[[UIBarButtonItem alloc]  
                               initWithTitle:NSLocalizedString(@"AddTitle", @"")
```

```
style:UIBarButtonItemStyleBordered
```

```
target:self
```

```
action:@selector(addAction:)] autorelease];
```

```
self.navigationItem.rightBarButtonItem = addButton;
```

```
(IBAction)addAction:(id)sender
```

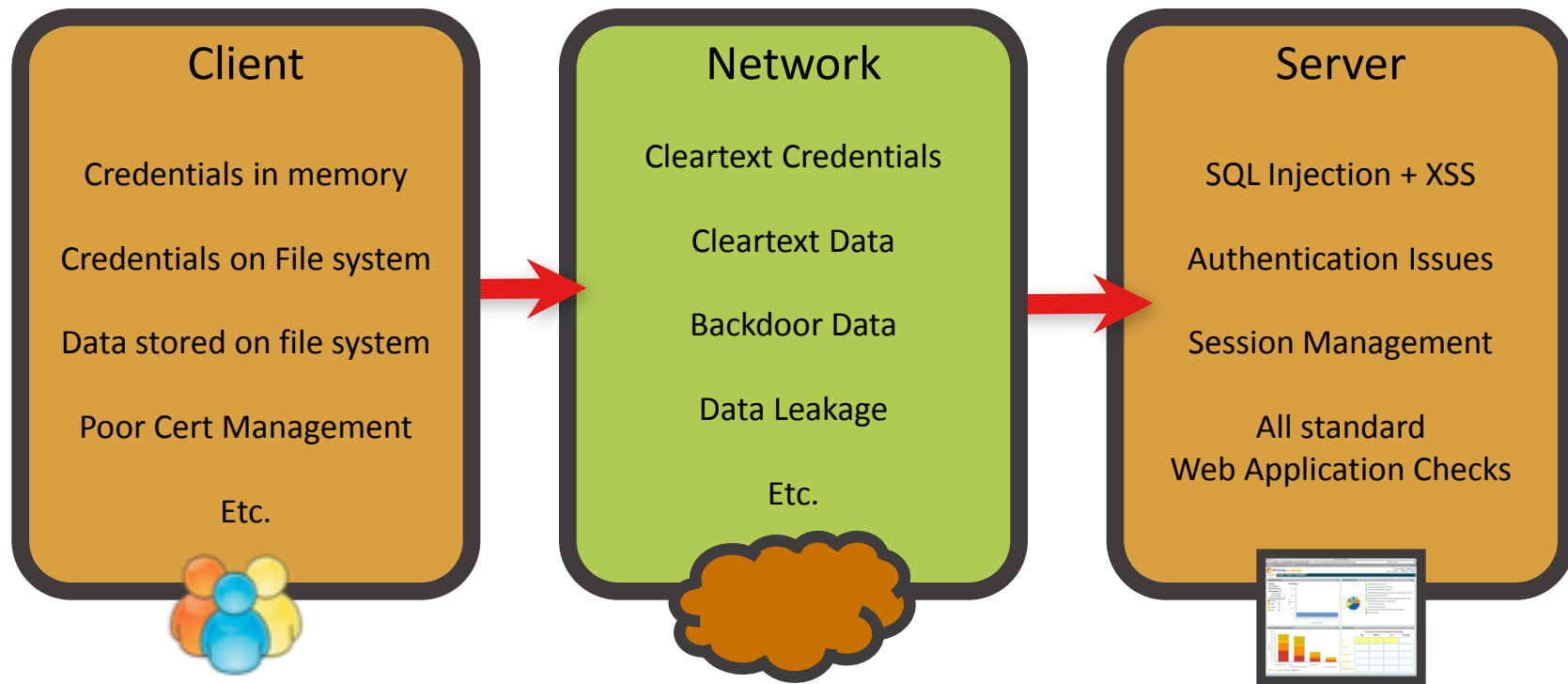
```
/*
```

```
* Please do not destroy. For functional testing - please use our  
* administrative account key to test
```

```
* https://xyz.com/api/?key=07d5f9923439-023423e44-4afd-923423ce9-6eb6634  
*/
```

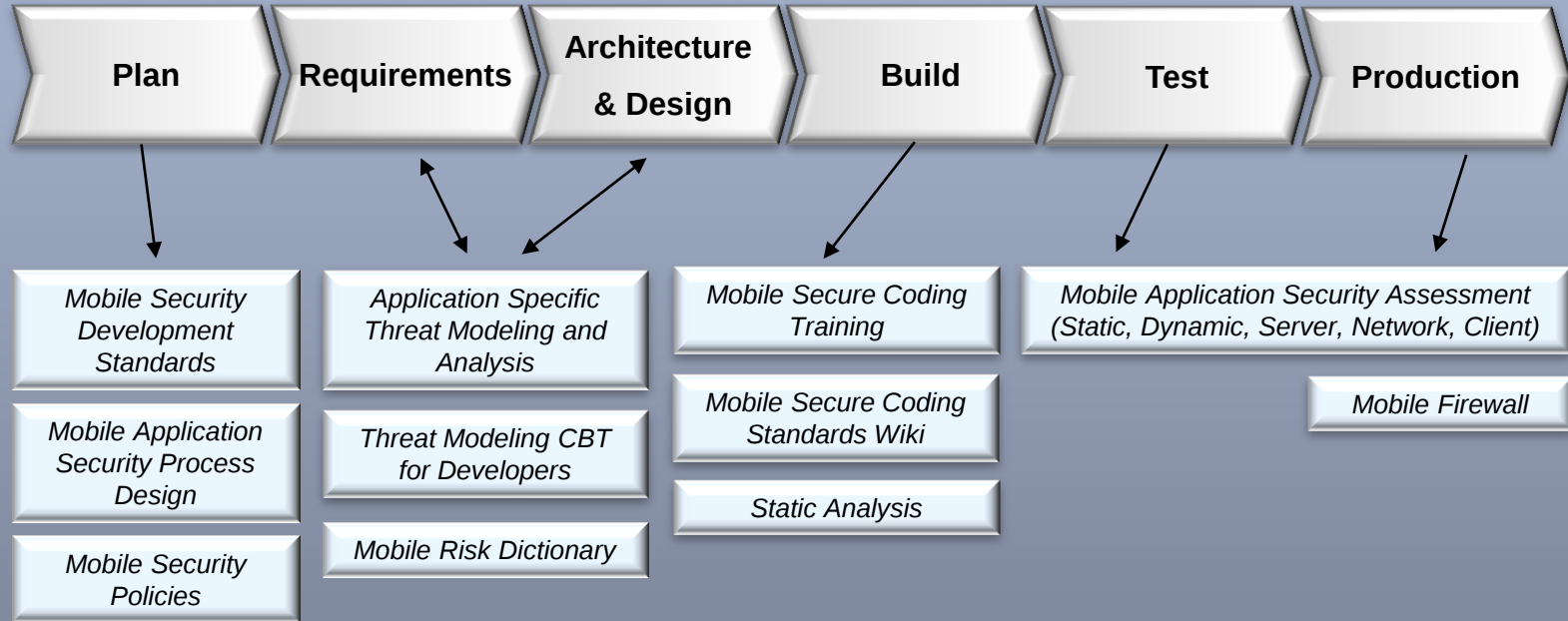
```
nd
```

Mobile Layers



Application Security

Security Foundations – Mobile Applications



OWASP Mobile Top 10 Risks

M1 – Insecure Data Storage	M6 – Improper Session Handling
M2 – Weak Server Side Controls	M7 – Security Decisions via Untrusted Inputs
M3 – Insufficient Transport Layer Protection	M8 – Side Channel Data Leakage
M4 – Client Side Injection	M9 – Broken Cryptography
M5 – Poor Authorization and Authentication	M10 – Sensitive Information Disclosure

Questions?

