



INDIAN WELLS

CALIFORNIA ASSOCIATION OF COUNTY TREASURERS & TAX COLLECTORS

# 2014 CACTTC ANNUAL CONFERENCE

JUNE 10-13, 2014 • RENAISSANCE ESERALDA INDIAN WELLS RESORT & SPA

## CYBERCRIME: What your Bank should be doing to Protect your Business

David Pollino  
Senior Vice President  
Fraud Prevention Officer



California Association  
of County Treasurers  
and Tax Collectors



INDIAN WELLS

CALIFORNIA ASSOCIATION OF COUNTY TREASURERS & TAX COLLECTORS

# 2014 CACTTC ANNUAL CONFERENCE

JUNE 10-13, 2014 • RENAISSANCE ESMERALDA INDIAN WELLS RESORT & SPA



*"You know, you can do this just as easily online."*



California Association  
of County Treasurers  
and Tax Collectors



CALIFORNIA ASSOCIATION OF COUNTY TREASURERS & TAX COLLECTORS

# 2014 CACTTC ANNUAL CONFERENCE

JUNE 10-13, 2014 • RENAISSANCE ESMERALDA INDIAN WELLS RESORT & SPA

## Agenda

- Changing Landscape
- Case of Efficient Services Escrow Group
- Six key questions every business should ask its Bank
- Other essential steps to prevent cybercrime



California Association  
of County Treasurers  
and Tax Collectors



INDIAN WELLS

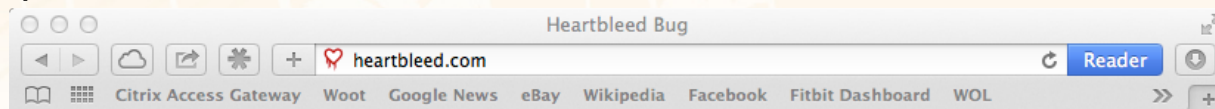
CALIFORNIA ASSOCIATION OF COUNTY TREASURERS & TAX COLLECTORS

# 2014 CACTTC ANNUAL CONFERENCE

JUNE 10-13, 2014 • RENAISSANCE ESMERALDA INDIAN WELLS RESORT & SPA

## Connectivity and Cybercrime

- Cyber security attacks are now publicly recognized as a growing threat affecting business and national security interests alike
- Between 2005 and 2012, references to cybercrime in the media have increased by up to 600%



### The Heartbleed Bug

The Heartbleed Bug is a serious vulnerability in the popular OpenSSL cryptographic software library. This weakness allows stealing the information protected, under normal conditions, by the SSL/TLS encryption used to secure the Internet. SSL/TLS provides communication security and privacy over the Internet for applications such as web, email, instant messaging (IM) and some virtual private networks (VPNs).

The Heartbleed bug allows anyone on the Internet to read the memory of the systems protected by the vulnerable versions of the OpenSSL software. This compromises the secret keys used to identify the service providers and to encrypt the traffic, the names and passwords of the users and the actual content. This allows attackers to eavesdrop on communications, steal data directly from the services and users and to impersonate services and users.

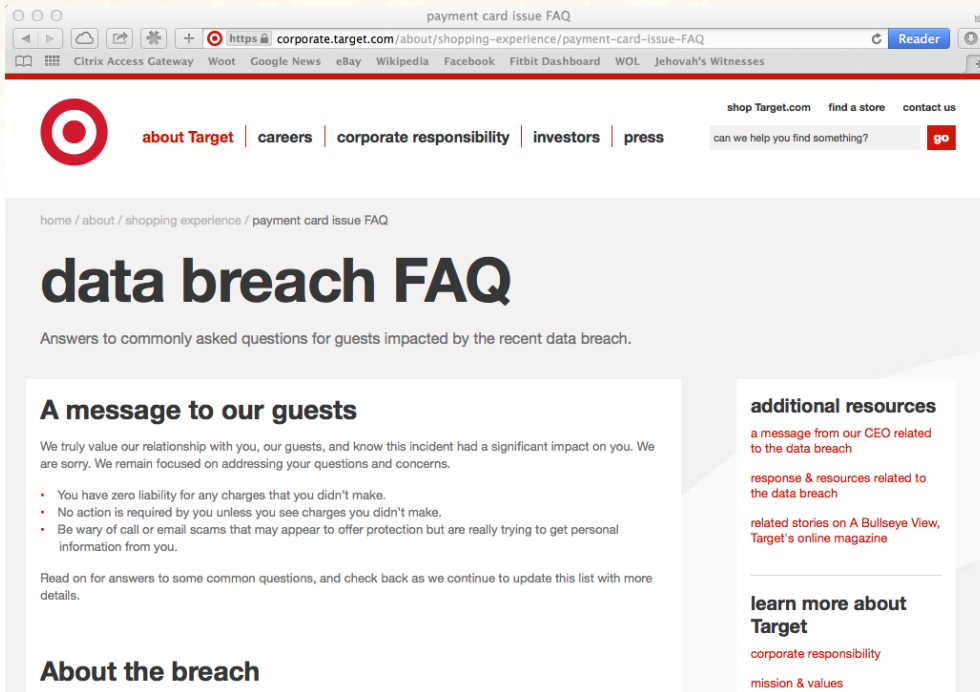


California Association  
of County Treasurers  
and Tax Collectors



## Connectivity and Cybercrime

– In 2012, 556 million adults worldwide experienced some form of cybercrime



The screenshot shows a web browser window displaying the Target corporate website's "data breach FAQ" page. The browser's address bar shows the URL: https://corporate.target.com/about/shopping-experience/payment-card-issue-faq. The page header includes the Target logo and navigation links such as "about Target", "careers", "corporate responsibility", "investors", and "press". The main content area is titled "data breach FAQ" and includes a sub-header "Answers to commonly asked questions for guests impacted by the recent data breach." The page is divided into two columns. The left column contains a section titled "A message to our guests" with a paragraph of text and a bulleted list of three items. The right column contains a section titled "additional resources" with three links: "a message from our CEO related to the data breach", "response & resources related to the data breach", and "related stories on A Bullseye View, Target's online magazine". Below this is a section titled "learn more about Target" with two links: "corporate responsibility" and "mission & values".

Sources: United Nations Office on Drugs and Crime, *Comprehensive Study on Cybercrime* (February 2013); Symantec Internet Security Threat Report 2013





CALIFORNIA ASSOCIATION OF COUNTY TREASURERS & TAX COLLECTORS

# 2014 CACTTC ANNUAL CONFERENCE

JUNE 10-13, 2014 • RENAISSANCE ESMERALDA INDIAN WELLS RESORT & SPA

INDIAN WELLS

## How Cybercrime Impacts Business


Target CEO resigns as fallout from data breach continues - Los Angeles Times

www.latimes.com/business/la-fi-target-ceo-20140506-story.html

Visual Browse

Business

Target CEO resigns as fallout from data breach continues



Target CEO Gregg Steinhafer is leaving the company in the wake of a massive data breach that exposed the personal information of up to 110 million customers during the holiday season last year.

By **TIFFANY HSU**

This article is related to: Economy, Business and Finance, Target Brands, Inc., Management Change, Corporate Officers,

Target CIO resigns following breach - Computerworld

www.computerworld.com/s/article/92

COMPUTERWORLD

Security

Target CIO resigns following breach

The retailer announces the resignation after data breaches affecting up to 110 million people

By Grant Gross

March 5, 2014 01:38 PM ET 15 Comments

IDG News Service - Target CIO Beth Jacob has resigned following a data breach at the retailer that may have affected as many as 110 million U.S. residents.

Jacob's resignation was reported by the Associated Press Wednesday. She has been CIO at Target since 2008, and is former director of guest contact centers and vice president of guest operations at Target. She earned a bachelor's degree in retail merchandising from the University of Minnesota in 1984 and a masters of business administration in 1989.

In mid-December, Target reported a data breach that compromised 40

Source: Symantec Corporation Internet Security Report 2013



California Association of County Treasurers and Tax Collectors



INDIAN WELLS

CALIFORNIA ASSOCIATION OF COUNTY TREASURERS & TAX COLLECTORS

# 2014 CACTTC ANNUAL CONFERENCE

JUNE 10-13, 2014 • RENAISSANCE ESMERALDA INDIAN WELLS RESORT & SPA

## How Cybercrime Impacts Business

- “Small Businesses Are the Path of Least Resistance for Attackers”
  - In 2012, **half of all targeted online attacks were aimed at businesses with fewer than 2,500 staff**
  - 31% of all attacks targeted small businesses with fewer than 250 employees, up from 18% from 2011.

In a March 2013 House subcommittee meeting, Chris Collins (R-NY) cited a study that found **60% of small businesses close within six months after a cyberattack.**



California Association  
of County Treasurers  
and Tax Collectors



## The Case of Efficient Services Escrow Group



- A suspected trojan allowed hackers access to Efficient Services Escrow Group’s computers. The hackers remotely initiated wire transfers to Russia and China on three separate occasions totaling \$1.5 million.







CALIFORNIA ASSOCIATION OF COUNTY TREASURERS & TAX COLLECTORS

# 2014 CACTTC ANNUAL CONFERENCE

JUNE 10-13, 2014 • RENAISSANCE ESMERALDA INDIAN WELLS RESORT & SPA

## The Case of Efficient Services Escrow Group

- Efficient Services Escrow recovered only half of the funds and, in March 2013, the firm was shut down by the California Department of Corporations.
- While the downfall of Efficient Services Escrow may have been due to its own shortcomings, the case sheds light on inadequacies of its Bank's security.



California Association  
of County Treasurers  
and Tax Collectors



CALIFORNIA ASSOCIATION OF COUNTY TREASURERS & TAX COLLECTORS

# 2014 CACTTC ANNUAL CONFERENCE

JUNE 10-13, 2014 • RENAISSANCE ESERALDA INDIAN WELLS RESORT & SPA

INDIAN WELLS

What are six key security questions any business should ask its bank?

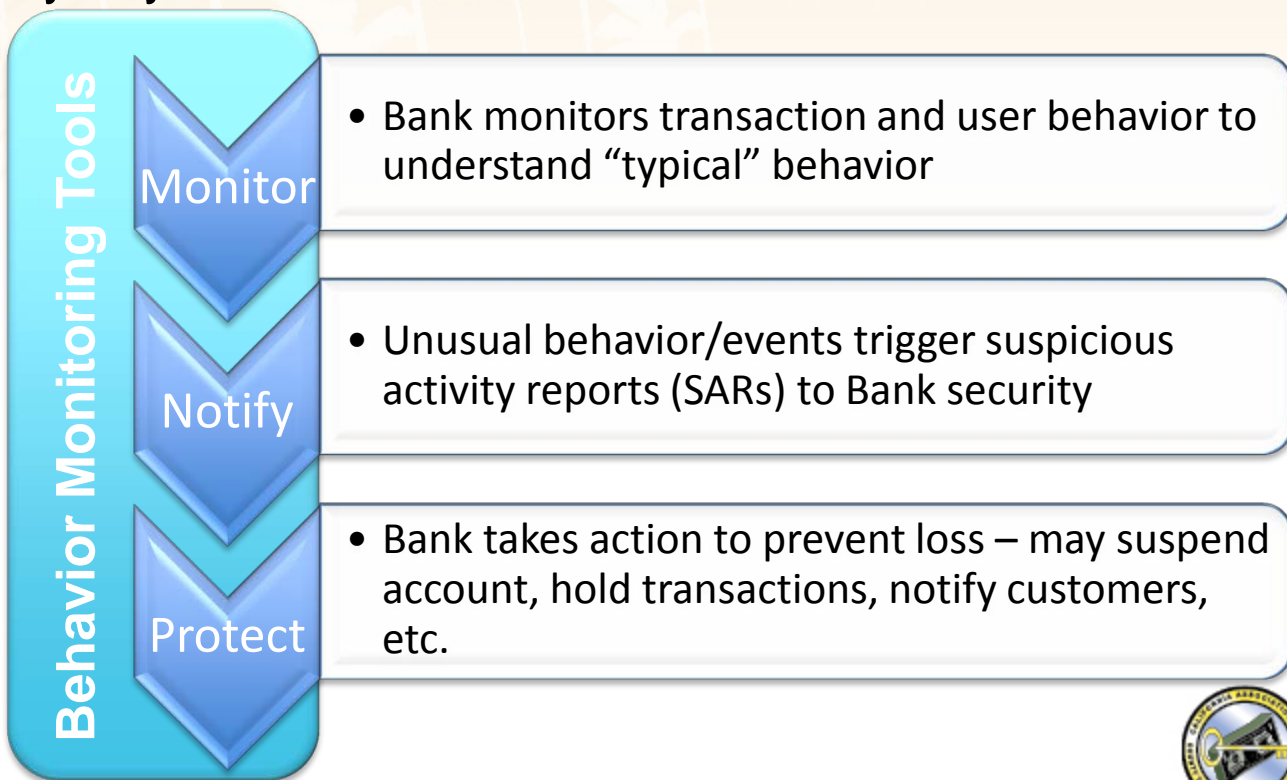


California Association  
of County Treasurers  
and Tax Collectors



## Does your bank use behavior monitoring tools?

- A bank's back-office behavior monitoring controls are not always visible to customers but they help protect businesses from loss every day





INDIAN WELLS

CALIFORNIA ASSOCIATION OF COUNTY TREASURERS & TAX COLLECTORS

# 2014 CACTTC ANNUAL CONFERENCE

JUNE 10-13, 2014 • RENAISSANCE ESMERALDA INDIAN WELLS RESORT & SPA

## Does your bank offer fraud-preventing products?

- A comprehensive suite of fraud-related products and features is essential to safeguarding against payments fraud



California Association  
of County Treasurers  
and Tax Collectors



## Does your Bank offer fraud education?

- Education and training are also key to generating awareness and compliance to fraud-preventing measures.

- Fraud videos

- Info security magazine

- Employee training

- Security best practices

### Heartbleed Bug: Key points to know

Category: Featured, Your Business | Published: 04/10/14 | Share:

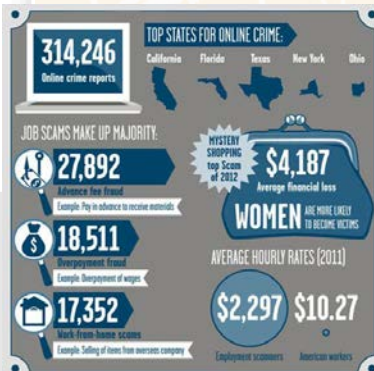
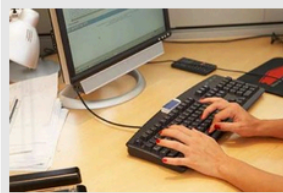


Posted by David Pollino  
Fraud Prevention

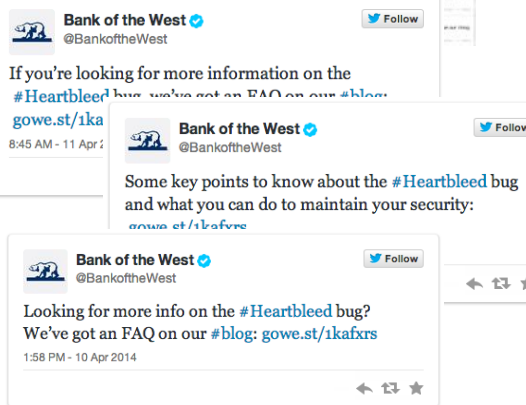
Given the widespread concerns about the Heartbleed Bug, I want to provide answers to some key questions about this security flaw.

#### What is the Heartbleed Bug?

Heartbleed is a flaw in the programming on secure websites that could put your personal information at risk, including passwords, credit card information and e-mails. The Heartbleed Bug is a defect in encryption technology — called Open SSL — used by most Web servers to secure users' personal or financial information. It is behind many "https" sites that collect personal or financial information.



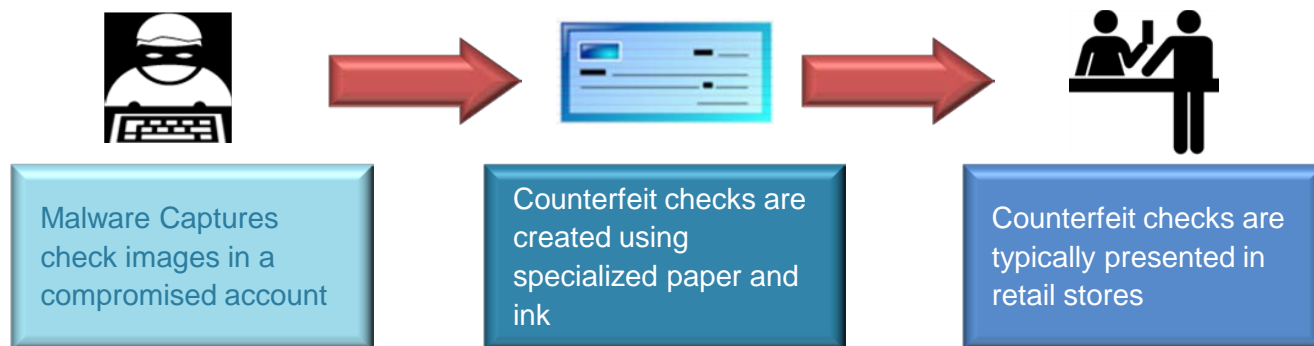
Basicl  
or send  
cybercr  
website  
Am I aff  
Most ac  
website  
SSL so





## Does your bank offer malware protection?

- **Every minute, 232 computers are infected by malware**
- Zeus is the top financial malware, responsible for around 80% of all attacks against financial institutions today and causing over **\$1 billion in global losses in the last five years**
- Hackers used a trojan to send wires from Efficient Services Escrow's account, but there are other ways fraudsters can use malware to steal money:



Source: RSA 2012 Cybercrime Trends Report





## Does your Bank provide out-of-band authentication?

- A second level of authentication via a different network adds a layer of security





INDIAN WELLS

CALIFORNIA ASSOCIATION OF COUNTY TREASURERS & TAX COLLECTORS

# 2014 CACTTC ANNUAL CONFERENCE

JUNE 10-13, 2014 • RENAISSANCE ESERALDA INDIAN WELLS RESORT & SPA

## Does your Bank help protect your employees?

- Businesses that deal in cash may have their employees handling and transporting large amounts of cash unprotected.



A Bank may provide a cash vault and armored car services to mitigate exposure to employees.



California Association  
of County Treasurers  
and Tax Collectors





CALIFORNIA ASSOCIATION OF COUNTY TREASURERS & TAX COLLECTORS

# 2014 CACTTC ANNUAL CONFERENCE

JUNE 10-13, 2014 • RENAISSANCE ESMERALDA INDIAN WELLS RESORT & SPA

INDIAN WELLS

## Essential Steps to Prevent Cybercrime

- What else your business should be doing:
  - Use malware detection tools
  - Keep user name and password secure (no sharing)
  - Require strong passwords (mixed case, letters, numbers and special characters, at least 10, no dictionary words even spelled backwards) that differ for each website and must be changed periodically
  - Limit user access and rights
  - Verify secure session (“https”) in browser for all online banking
  - Avoid login features that save username and password
    - Use 2 factor email authentication = <http://blog.bankofthewest.com>

### Why I use 2-factor authentication for email — and you should, too

Category: Your Business | Published: 04/08/14 | Share:



Posted by David Pollino  
Fraud Prevention

Email is one of the most common targets for hackers into individuals' and businesses' computer systems. Some small business owners use personal email to conduct business, and even larger businesses sometimes mingle personal and business email.



California Association  
of County Treasurers  
and Tax Collectors



CALIFORNIA ASSOCIATION OF COUNTY TREASURERS & TAX COLLECTORS

# 2014 CACTTC ANNUAL CONFERENCE

JUNE 10-13, 2014 • RENAISSANCE ESMERALDA INDIAN WELLS RESORT & SPA

INDIAN WELLS

## Essential Steps to Prevent Cybercrime

- What else your business should be doing:
  - Install a dedicated, actively managed firewall
  - Use a regular operating system and key application security patches
  - Initiate ACH and wires under dual control
  - Ensure anti-virus and security software and mechanisms for all computer workstations and laptops used for online banking and payments are robust and up-to-date
  - Restrict functions for computer workstations and laptops that are used for online banking and payments
  - Monitor and reconcile accounts daily



California Association  
of County Treasurers  
and Tax Collectors



INDIAN WELLS

CALIFORNIA ASSOCIATION OF COUNTY TREASURERS & TAX COLLECTORS

# 2014 CACTTC ANNUAL CONFERENCE

JUNE 10-13, 2014 • RENAISSANCE ESERALDA INDIAN WELLS RESORT & SPA

# Questions?



California Association  
of County Treasurers  
and Tax Collectors



CALIFORNIA ASSOCIATION OF COUNTY TREASURERS & TAX COLLECTORS

# 2014 CACTTC ANNUAL CONFERENCE

JUNE 10-13, 2014 • RENAISSANCE ESERALDA INDIAN WELLS RESORT & SPA

## Summary

### **CYBERCRIME - What your Bank should be doing to Protect your Business**

Cyber security attacks are now publicly recognized as a growing threat affecting business and national security interests alike. Up to half of all attacks target small to medium sized businesses. What are six key security questions any business should ask its bank? What steps should each small business be taking to prevent being the victim of Cybercrime? The answers may affect your business's ability to survive a cyber-attack.



California Association  
of County Treasurers  
and Tax Collectors