# Lessons Learned from a Cross-Organizational Data Loss Security Incident

Tom Siu Chief Information Security Officer

#### Welcome to a Compliance Brown Bag Lunch Presentation

- Information about these events:
  - Informal (bring your lunch!) Training or informative sessions that cover a variety of compliance related topics.
  - Open to all University community members, but each event typically has a target audience.
  - If you like what you hear don't be afraid to ask for a repeat presentation in your own department.
  - E-mail notifications of future events available please contact <u>boyd.kumher@case.edu</u> to be added to distribution list.

## About the Compliance Program

#### • Purpose

- Outline, document, assess, and support the University's compliance efforts
- Encourage compliance by providing support, training, and educational resources.
- More Information
  - Brochures available at door.
  - <u>www.case.edu/compliance</u>
  - Contact Boyd Kumher, the University Compliance Officer, at 216-368-0833.

Lessons Learned from a Cross-Organizational Data Loss Security Incident

Lessons Learned: Thomas Siu CWRU, Oct 23, 2012

# Overview

- Novel Incident
- Changed CWRU response process
- Case Study
- Policy and Procedure Implications
- Lessons Learned

# Background

- Researcher collects digital audio recordings in research protocol
- Subjects given study numbers
- Field data collection from non-campus location
- SOP is to return equipment to CWRU after field data collection
- Study includes subjects from UH, CCF, Metro

# **Incident Summary**

- Computer, equipment theft
- Researcher notifes PI
- PI notifies IRB
- IRB notifies HIPAA Security at Metro Health
- Metro notifies CWRU Research Admin
- CWRU Information Security notified
- Incident investigation begins
- Coordinated risk evaluation between organizations

## Facts

#### Data gathering procedure

- CWRU initially determined negligible risk of disclosure from computers
- Paper records also lost
- Laptop not using encryption
- Equipment not in our possession

# Investigation

- Forensic analysis of representative laptop
- Evaluated the (remaining) SD cards used
- Possibility that some audio files could be exposed to thief

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😽 Piriform Recuva

Case Windows 7 - Parallels Desktop



#### Recuva.com v1.42.544

MS Windows 7 Enterprise 32-bit SP1 Intel Core i5-2415M CPU @ 2.30GHz, 1.5GB RAM, Parallels Display Adapter (WDDM)

Filename	Path	Last Modified	Size	State	Comment	Preview	Info	Header	1
				28 00 00	No overwritten clusters detected.	Control Control		( Tearcher	
0328_100536.MP3	E:\	3/28/2008 10:05	36,124 KB						
0803_164825.MP3 0805 135020.MP3	E:\	8/3/2010 16:48	25,754 KB		No overwritten clusters detected.				
	E:\	8/5/2010 13:50	17,358 KB		No overwritten clusters detected.				
	E:\	8/5/2010 18:23	18,508 KB		No overwritten clusters detected.			No file	
	E:\	9/23/2010 17:00	43,862 KB		No overwritten clusters detected.				
🔲 🛞 [000001].mp3	E:\?\	Unknown	55,104 KB		No overwritten clusters detected.				
000002].mp3	E:\?\	Unknown		Excellent	No overwritten clusters detected.				
🔲 🍥 [000003].mp3	E:\?\	Unknown	110000000000000000000000000000000000000	Excellent	No overwritten clusters detected.				
🔲 🍥 [000004].mp3	E:\?\	Unknown	27,456 KB	Excellent	No overwritten clusters detected.				
🔲 🍥 [000005].mp3	E:\?\	Unknown	4,985 KB	Excellent	No overwritten clusters detected.				
🔲 🍥 [000006].mp3	E:\?\	Unknown	18,625 KB	Excellent	No overwritten clusters detected.				
🔲 🍥 [000007].mp3	E:\?\	Unknown	65,902 KB	Excellent	No overwritten clusters detected.				No file se
🔲 🍥 [000008].mp3	E:\?\	Unknown	705 KB	Excellent	No overwritten clusters detected.				110 110 00
[000009].mp3	E:\?\	Unknown	7,382 KB	Excellent	No overwritten clusters detected.				
[000010].mp3	E:\?\	Unknown	32,639 KB	Excellent	No overwritten clusters detected.	t			
09_0001.MP3	E:\	9/30/2010 20:03	91,502 KB	Poor	This file is overwritten with "E:\.Spotlight-V100\St				
0802_190055.MP3	E:\	8/2/2010 19:00	43,862 KB	Very poor	This file is overwritten with "E:\_09_0001.MP3"				
0620_143554.MP3	E:\	6/20/2008 14:35	36,871 KB	Unrecoverable	This file is overwritten with "E:\.fseventsd"	1			
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FAT16, 1.83 GB. cluster size: 32768. Found 18 files (106 ignored) in 116.88 sec.





# Complications

- Probability of sensitive data on the lost SD card
- Decision to review ALL data
- Time crunch to meet mandated reporting time window
- Different organizations have differing opinions on "breach" status
- CWRU is not a Covered Entity, not subject to HIPAA/HITECH

#### Lessons Learned

- Relationships: Engage conversations with UH, Metro, CCF before incidents
- CWRU has higher risk tolerance threshold
- HITECH audits spawn fuear of HHS audit and fines
- Researchers need to inform CWRU Research Admin when a theft of data or devices occurs
- Collaboration: Counsel, Compliance, Information Security, Research Admin