



Did I Block That?

Five (or so) Things Organizations Botch During a Compromise

Chris Bream, Director



- Introduction
- Common Incident Response Mistakes
 - Data
 - Leadership
 - Focus
 - Intensity
 - Information Management
 - Remediation
- Conclusion

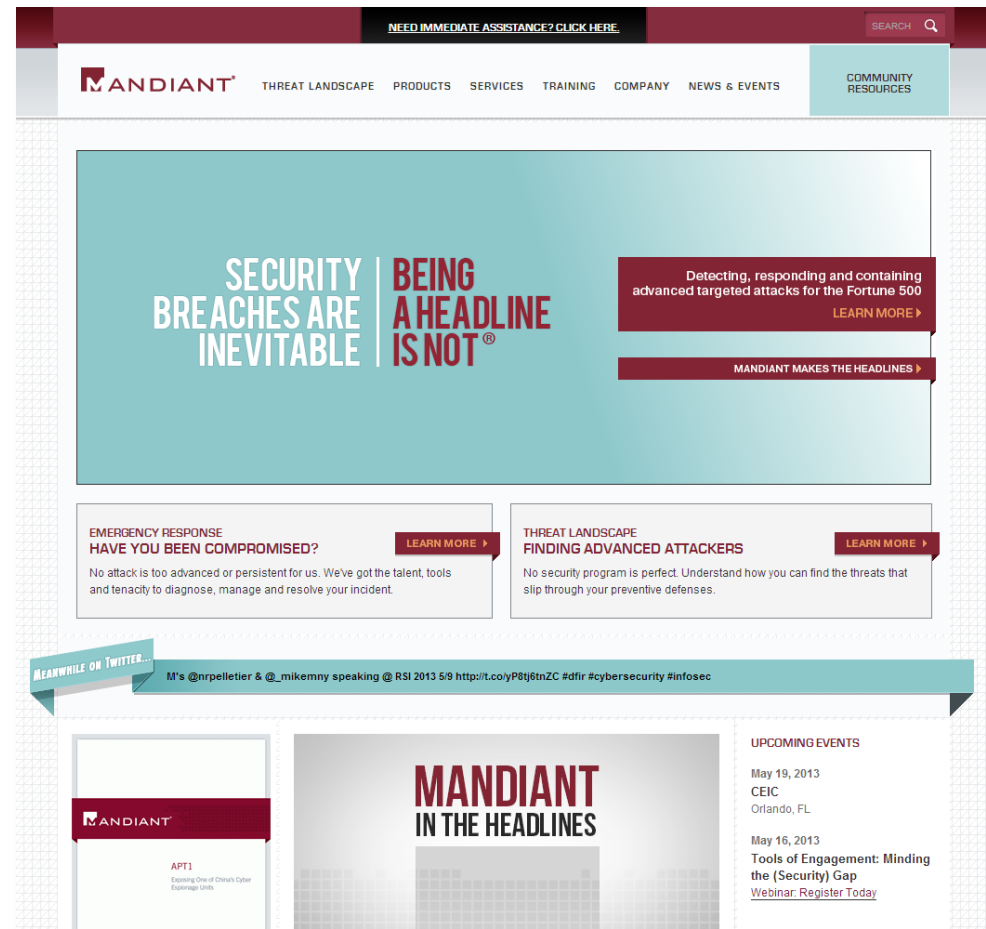
Introduction



We are MANDIANT



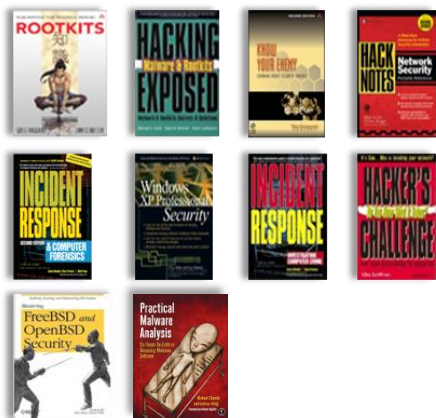
- VISA Qualified Incident Response Assessor (QIRA)
- Targeted Threat and CDT experts
- Located in
 - Washington
 - New York
 - Los Angeles
 - San Francisco
- Professional and managed services, software and education



Our Team: Industry Leaders

- Extensive information security experience, primarily focused on incident response
- 10 security books authored or co-authored
- Testified about targeted threats to the Permanent Select Committee on Intelligence

Books



Articles and interviews



Presentations



Common Incident Response Mistakes



ISSUE

- Forensic and log data can be the source of issues
 - Quality
 - Quantity
 - Blind spots
 - Accessibility

RECOMMENDATION

- Move from getting data to getting the right data
 - Find your blind spots and address them
 - Identify the data that matters and collect it
 - Make the data that matters easily accessible
 - All team members have access to data sources

ISSUE

- Organizations struggle with IR leadership
 - No leaders
 - Too many leaders
 - Ineffective leaders
 - Groups or individuals “going rogue”

RECOMMENDATION

- Assign a single IR lead
 - Knowledge of IR not IT or security
 - Full spectrum authority
 - Final decision maker
 - Decisions made with consultation, not agreement

ISSUE

- Participant focus can be misdirected
 - Resources not dedicated to response
 - Individual on periphery focusing on IR
 - Investigating hunches not leads

RECOMMENDATION

- Dedicate an investigative team during an incident
 - Sole focus on the incident
 - IR lead directs team efforts exclusively
 - Team members have necessary authority during incident

ISSUE

- Organizations don't manage the intensity of the incident
 - Investigation and response are too intense
 - IR fatigue
 - Leadership does not take incidents seriously enough

RECOMMENDATION

- Manage efforts and expectations effectively
 - Set realistic expectations with management
 - Ensure leadership is aware but not overly informed
 - Monitor workload and length of shifts, enforce balance as necessary

ISSUE

- Large amounts of IR data is not properly managed
 - Information is not normalized for efficient consumption
 - Information is provided without context
 - Incomplete information leads to incorrect conclusions

RECOMMENDATION

- Build mechanisms to manage information
 - Settle on a standard time zone for **all** timestamps
 - Develop an information tracking tool before an incident
 - Create a mechanism for information sharing
 - Set a standard for minimum context

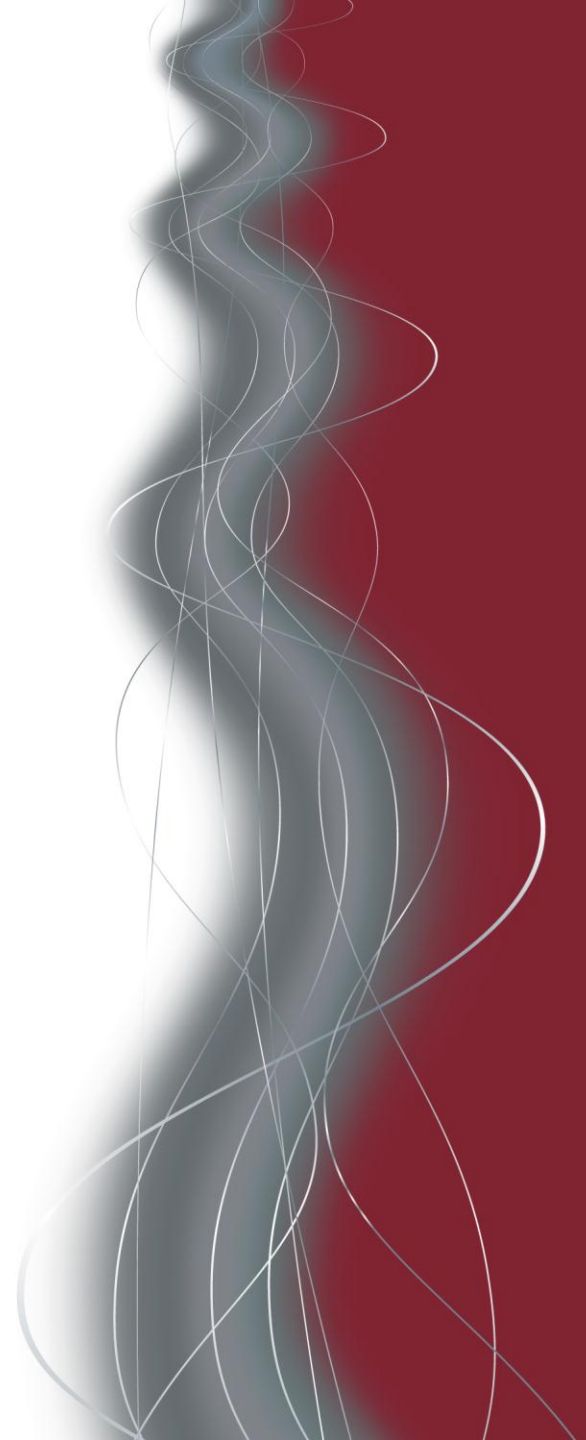
ISSUE

- Remediation activities can make investigation efforts meaningless
 - Misunderstanding scale of compromise
 - Inappropriate remediation activities
 - Overreaching remediation activities
 - Failure to verify

RECOMMENDATION

- Take a measured, complete remediation approach
 - Full-scale compromise means full-scale remediation
 - Targeted remediation for targeted compromises
 - Test, test, and test again
 - Set a date, miss it, set a second date, make it

Conclusion



- Organizations make mistakes in a number of areas
 - Data
 - Leadership
 - Focus
 - Intensity
 - Information management
 - Remediation
- Once an incident happens, it's too late to fix your issues
- Understanding what happens during an incident is key



Download the full
report
<http://www.mandiant.com>

STATE OF THE HACK

- Designed for all technical levels
- Case study format
- Illustrates the latest attacks we are seeing



FRESH PRINTS OF MALWARE

- Designed for the technical user
- Case study format
- Digs deeper into the technical aspects of the incidents we respond to





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IOCFinder

look for evil on your endpoints

Redline

answers the question: are you compromised?

Web Historian

browser analysis

Memoryze

memory forensics

Mac Memoryze

memory forensics for MacOS

Highlighter

log analysis

IOCe

indicator of compromise editor

OpenIOC

common language to describe IOCs

Heap Inspector

detect heap spray in memory

Shim Cache
Parser

look for trace evidence of executing evil



- Positions in
 - Intel
 - MCIRT
 - Product development
 - Sales
- Locations
 - Alexandria, VA
 - New York
 - Los Angeles
 - San Francisco
 - Reston, VA
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