

■ Practice makes perfect

> Using micro-exercises to stay on top of your game

James Allman-Talbot, Head of Cyber Incident Response

■ Practice makes perfect

You wouldn't run a marathon without training

You wouldn't sit an exam without revising

You wouldn't respond to a cyber attack without practicing

... or would you?

■ Incident response

 Responding to incidents is not a tick box exercise

 Every incident brings its own challenges

 Successful response requires speed, agility, and preparation

■ Preparing to **respond**



Plan & process: Crisis and Incident Response plans, checklists; pre-prepared communications



Resource: Experts on standby – Incident Response teams, public relations, legal



Investigation and Remediation: Capabilities, people and the right data



Threat aware: Understand risks and impacts and how to mitigate them



Practice: Exercises for all levels; test technical remediation and recovery



Authorities: Who makes those critical decisions and when are they available



Systems and data: Understand your estate's critical data and systems

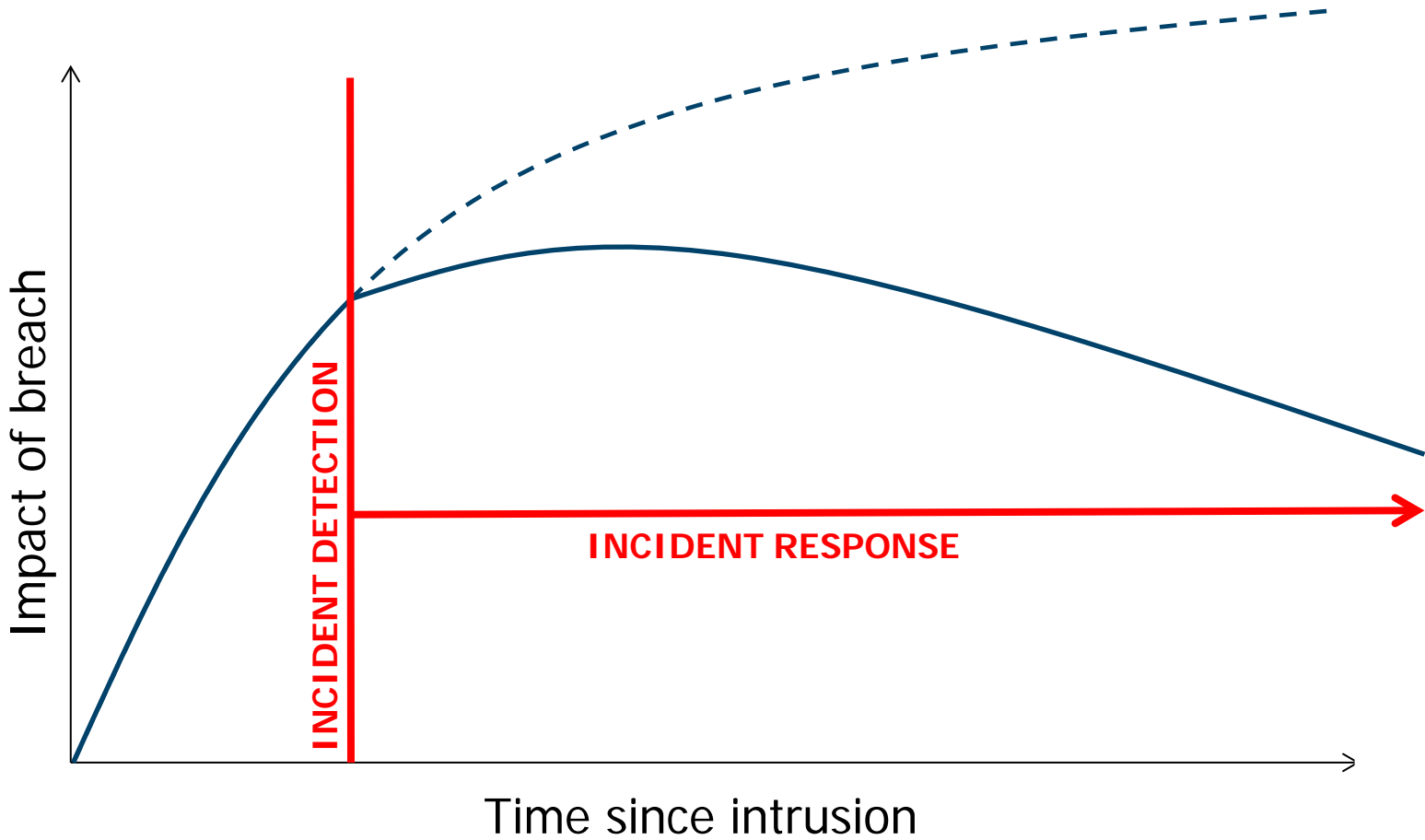


Legal / Regulatory: Understand what you have to report/do and when

■ Why practice?

- Develops organizational **muscle memory**
- Ensures everyone is aware of their **responsibilities** (and others)
- **Tests** the process
- Helps review and **refine** the process

Benefit of Incident Response



■ So... **practice?**

Exercise

Condensed scenario for both technical staff and C-suite execs, run separately. Designed to run through a realistic scenario in a 3-4 hour session and test knowledge of plans, or encourage awareness.

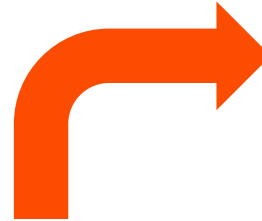
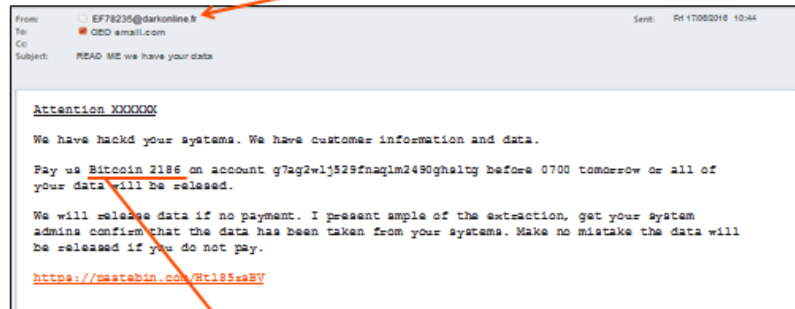
Wargame

Red-teaming, but includes Crisis Management response. Designed to put plans in to practice and test their suitability and feasibility from every angle. Typically run over 3-4 days, possibly longer.

Incident Exercises

41 minutes ago you received this...

> Thursday 11:25



What do you do?
20 hours to go, the clock is ticking...



Recap:
- Ransom email for £1,000,000
Some data shown online
Reporters contacting you

Reporters are becoming aware...

> Thursday 12:18

Some tech journalists and security researchers have learnt about the data online...

... queries are starting to come in.



Three reasons to exercise



Raise Awareness

- Highlights the need for a process if one is not in place
- Typically only at C-level
- Designed to highlight holes and encourage board buy-in

Test the Process

- Tests the suitability of a process after it is developed
- Usually at CMT/technical level
- Designed to put the process through its paces

Exercise the Process

- Builds awareness and muscle-memory
- Usually at all levels, including tech and C-level
- Designed to bring familiarity to the process and ensure participants are aware of responsibilities

■ Three reasons **not** to exercise

Time

Blocking out 3-4 hours is difficult, especially with C-Suite execs.

Cost

Exercises take a lot of preparation, logistical planning, and expertise.

Fatigue

Getting one exercise done is hard enough, repeating the process can be tedious.

■ What do we do?

Introducing....

Micro-Exercises

Two types

Pre-planned

- 1 hour exercise
 - Delivered over WebEx
 - Choice of 3-4 scenarios
- Designed to raise awareness to board members or wider business

Spontaneous

- The 'Fire Drill' option
- Short scenario of pre-defined length
- Delivered over WebEx, at a random unplanned time
- Incidents never happen at an appropriate time...

■ Pre-planned **micro-exercises**

Pre-planned micro-exercises allow organizations to test Crisis Management Teams, without the **cost** or **logistical overhead**.

For more mature organizations, allows for a simple test of an **established process**.

For less mature organizations, **raises awareness** of a potential lack of preparedness.

■ Spontaneous **micro-exercises**

You run yearly fire drills, do you run yearly **cyber drills**?

Cyber drills provide a **realistic test** of your cyber incident management process.

Builds muscle memory, and ensures an **effective response** when the time comes.

■ Spontaneous exercises - planning process

1. Determine the length and content of the scenario
 2. Identify the point of escalation
 3. Agree approximate timeframes
4. During one of the time windows, we will engage the incident through the agreed process
5. Crisis Management Team convenes and dials-in to our WebEx, where we will run the session

Comparison

	Traditional Exercise	Micro Exercise
Cost	\$40,000 - \$80,000	\$12,000 - \$27,000
Logistics	4-5hrs in duration Delivered in-person at one location	1hr in duration Delivered remotely over WebEx
Target Audience	Can be tailored to all audiences	Useful for C-Suite execs and Crisis Management Teams, less useful for tech teams
Scenario Selection	Custom scenario tailored to your business	Selection of 3-4 scenarios relevant to all sectors

■ Key messages

An effective response lowers costs and **mitigates risks**

Cyber exercises are a key component of an organizations preparedness to **respond effectively**

Micro exercises allow exercises to be run **more often**, at lower cost, and with less logistical overhead

■ Questions?

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