



## Case Study:

# Regional Cybercrime Units: Developing a Holistic Approach to Identify and Respond to Emerging Cyber Crime

**Chris White**

Head of Cyber & Innovation  
Police Detective Inspector

# Cybercrime Statistics



Teens **more likely to unlawfully hack** (5%) than smoke (3%) or have sex (2%)



Teens **more likely to unlawfully hack** (5%) than be in a gang (2%)



~**1%** of teenagers **sent a virus** at least once in previous 12 months

**1 in 4**

Teenagers admitted having **tried to compromise someone's account**

**17**

Average age of arrest for cyber crime



**61%**

Of hackers started **before 16 yrs old**



**83%**

rise in cyber frauds by those under 18 over three years



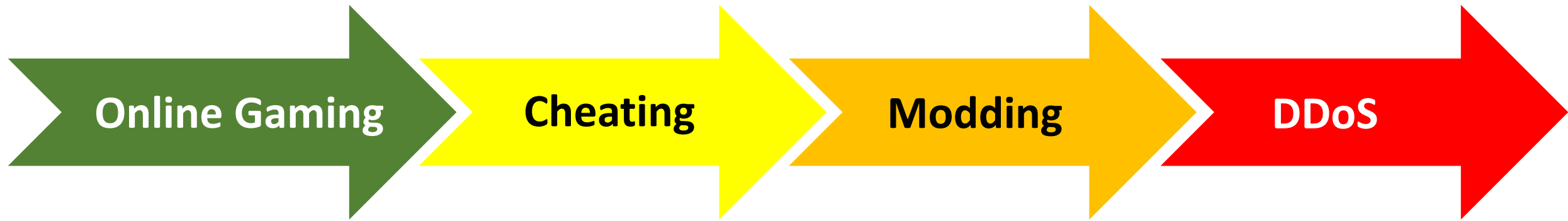
**1 in 2**

Businesses close within 6 months of a cyber attack



# Pathways to Cyber Crime

Not all online gamers are cyber criminals, but when we find the cyber criminal we often find:



# Enablers of Cyber Crime



Cyber Crime Services  
'Off the Shelf' Hacking Tools



Perceived as Victimless



Lack of understanding of law



No fear of getting caught



Chat forums

# Raising Awareness

Schools are the starting point, but in the South-East region alone:

- 1500+ Primary Schools
- 750+ Secondary Schools
- + Further and Higher Education...

The response requires:

- Educating schools – a holistic, multi-agency *Safeguarding* issue and not just Law Enforcement... a need to teach computer law and ethics
- Embedding computer misuse into Safeguarding processes
- Identifying individuals of concern and educating and diversion
- Deterring those who might be tempted to commit cybercrime

# The Cyber Choices Team...



Identifies and educates



Deters and diverts



Manages the highest risk cyber offenders



Explores pathways into cybercrime



# The Cyber Choices Team...

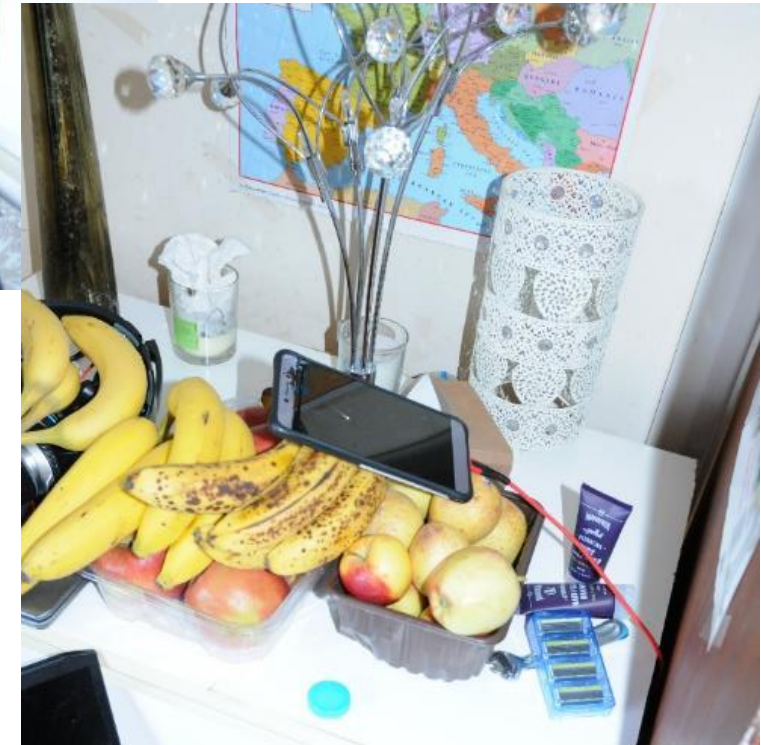
<https://serocu.police.uk/cyber-choices/>  
CyberChoices@serocu.police.uk

March 2020 SEROCU were on call for Team Cyber UK

On **Friday 13<sup>th</sup>**, we got **“THAT”** call from TICAT







# M.O.



- Tested website's security for captcha / 2fa
- Brute forced those without, using sourced credentials and a script to report positive returns
- Would then manually log in on positive hits, make benefit
- Made DIY combo lists from various sources / youtube / forums

Important to note during Covid-19 crisis companies  
**were not**  
interested in supporting investigation

Had never seen the  
**sheer amount of legitimate internet traffic**  
hitting their sites just ordering food

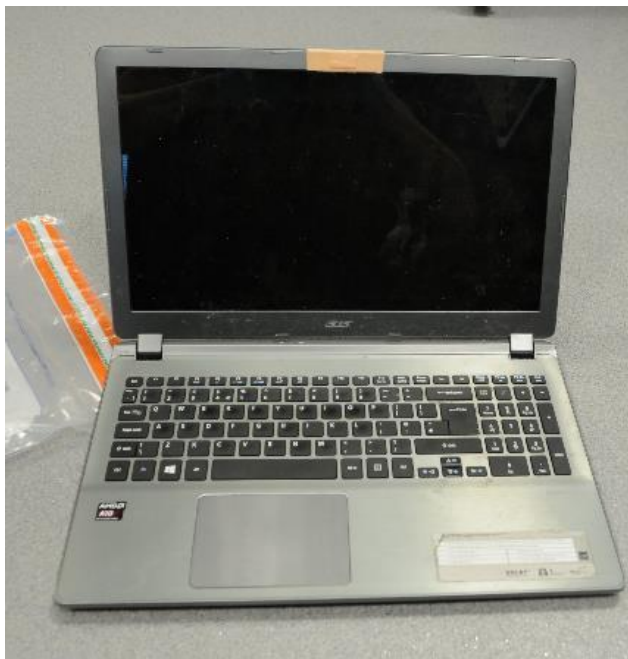
IT department's priorities were trying to  
**keep their companies and infrastructure online,**  
**they were in survival mode**



1<sup>st</sup> laptop - 60,451,061 end users / 19 combos  
2<sup>nd</sup> laptop - 15,948,788 end users / 43 combos

Total **76 MILLION+** compromised details  
usernames & passwords / email & passwords

**10,443,930 returned as unique** to this operation



**Action taken** on 7,120,993 which was 68% of output  
3,377 belonged to Government Addresses of which  
988 were NHS  
10,008 were Universities



# Time Line

1700 13/3/20

Initial contact from TICAT

1200 14/3/20

Deployed Assets

1330 14/3/20

Subject in custody

15-18/3/20

Digital Forensic work/Cyber Protect strategy

19/3/20

2<sup>nd</sup> Interview

23/3/20

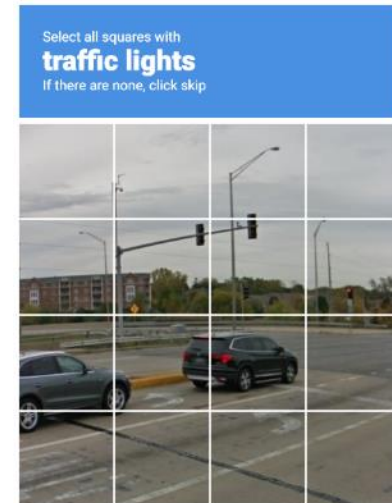
Securing statements & evidence gathering

6/4/20

Submitted CPS Charging advice file

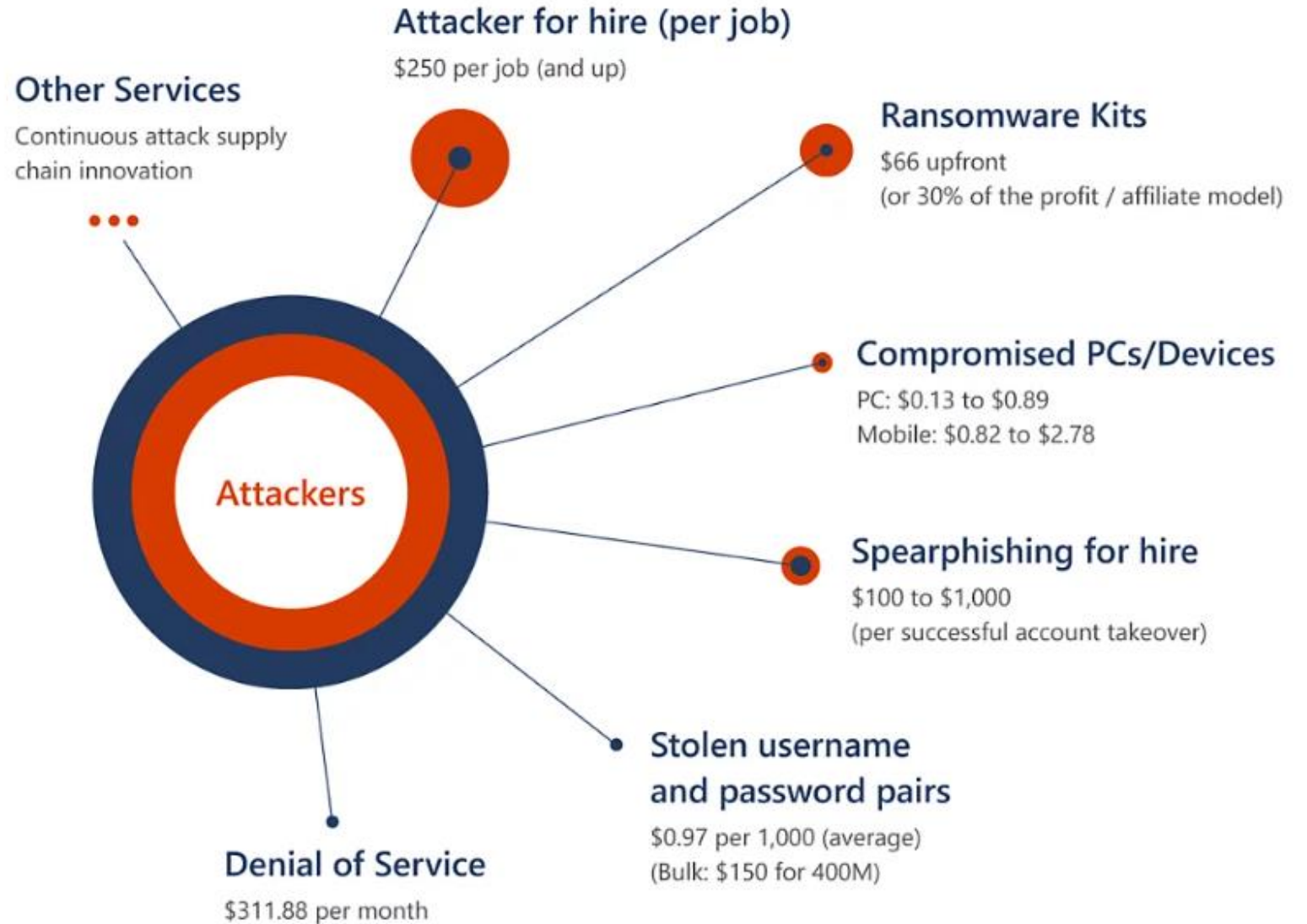
# Mitigation

- Activate Google CAPTCHA on login endpoint
- Forced password changes on affected accounts
- Provided Info all affected with basic cyber mitigation
  - Password policy to be reviewed to increase to at least NCSC guidance 12 characters+ and complexity
  - Turning on or offering 2FA to end users
  - Create lockout policy



# Current Threat

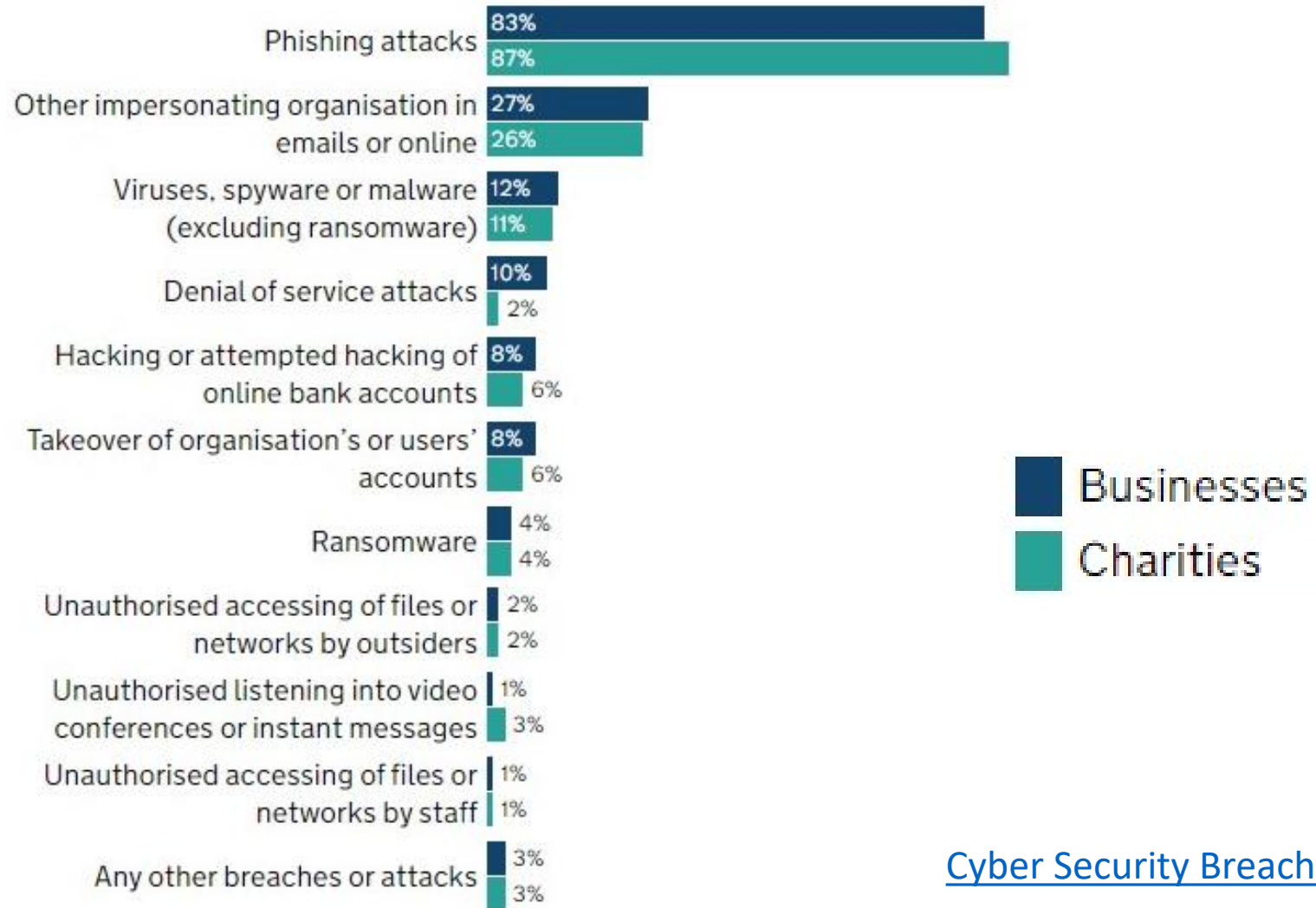
## Average prices of cybercrime services for sale



[Microsoft Digital Defense Report](#)

Police partnership aimed at improving #CyberResilience businesses - [www.secrc.co.uk](http://www.secrc.co.uk)

# Harm



[Cyber Security Breaches Survey 2022](#)



# Risk



Password attacks	34,740 per minute
IoT-based attacks	1,902 per minute
DDoS attacks	19 per minute
Phishing attacks	7 per minute
SQL injection attacks	1 per minute
New threat infrastructure detections	1 every 35 minutes
Supply chain attacks	1 every 44 minutes
Ransomware attacks	1 every 195 minutes

[Cyberthreat Minute: The scale and scope of worldwide cybercrime in 60 seconds](#)

October 6, 2015



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## It's in the bag



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### FEATURED NEWS

#### Otter Tail Telcom internet services suffer 5 hour outage

Otter Tail Telcom internet services were limited or completely unresponsive since about 12:30 p.m. Monday. The outage was reportedly caused by a construction company accidentally ... [Read more](#) | [Add your comment](#)

#### Memoir recalls early days in the area

#### Moorhead boater accused of drowning buck, says he was



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### FEATURED OPINION

#### Vision of Lake Alice remains captivating

SOLE TRADERS, SMEs, THIRD SECTOR ORGANISATIONS,  
**BOOST YOUR CYBER RESILIENCE**



- Consultancy in order to grow and strengthen the UK's resilience to online crime and cyber attacks
- Bridging the gap between police messaging and large cyber security provider's offerings
- Working with student talent to provide low cost services
- Provide guidance and support from leading law enforcement and industry experts to help take simple steps to protect their business from unscrupulous cyber criminals.



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# Cyber Services



## **Corporate Internet Discovery**

Find out what information an attacker can gather about your business and how it can be used in a cyber-attack

## **Individual Internet Discovery**

Find out what exists about you or one of your senior team online and how this could be used against you

## **Security Awareness Training**

Ensure your staff are aware of risks faced from Cyber and how to protect themselves and your business

## **Remote Vulnerability Assessment**

Can an attacker breach your system remotely?

## **Internal Vulnerability Assessment**

Find out how secure your network is once an attacker has managed to make a connection

## **Web Application Vulnerability Assessment**

Find out what vulnerabilities exist, what risks they create for your business and how to fix them

## **Security Policy Review**

Find out how robust your current Cyber Security Policies are

## **Cyber Business Continuity Exercise**

A practical assessment tailored for your organisation to test your business continuity plan and its robustness facing cyber-attacks

## **Partner Resource Support**

Student Resource will be used to fill temporary gaps, support extended resource requirements to support projects, or during incident response.

# Start that #CyberEssentials journey be more resilient against a cyber attack

- Obtaining Cyber Essentials Certification is simple with minimal cost
- Assessed against 5 basic security controls
- A qualified assessor verifies that information
- Eligible companies entitled to FREE Cyber Insurance
- Implementing Cyber Essentials can stop the majority of Cyber Crime





**Thank you for listening**

**Chris White**, Head of Cyber & Innovation  
[Chris.white@secrc.co.uk](mailto:Chris.white@secrc.co.uk) | 07909 906177 |  
[www.linkedin.com/in/chriswhite3](https://www.linkedin.com/in/chriswhite3)