

# Cyber Readiness for schools

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## **UK Law Enforcement Structure**









National Cyber Security Centre



REGIONA



National Fraud & Cyber Crime Reporting Centre



#### 2020 Winners

THE NATIONAL CYBER AWARDS

# **UK Cyber Policing**

#### PREPARE

Ensure the necessary capabilities exist to tackle and respond to cyber crime.

#### PROTECT

Reduce the vulnerability amongst our communities from the threat of cyber crime.

PREVENT

Prevent people from becoming involved in cyber crime.

PURSUE

Relentless disruption and prosecution of those committing cyber crime.





## What is Cyber Crime?

#### **Cyber-Dependant**



Ransomware





Business Email Compromise



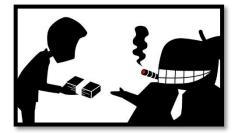
Compromise



#### **Cyber-Enabled**



**Insider Threat** 



Blackmail



**Drug Supply** 



Harassment

#### **Threat Actors**

- Script Kiddies
- Hackavist Groups
- OCGs
- Advanced Persistent Threat (often state sponsored)
- State Actors





# **Main Cyber Crime Trends**



- Social Media account compromise for purposes of fraud
- Ransomware infections, often delivered via RDP
- Sextortion phishing
- SIM swapping

## Social Media Account Compromise



- 5150 reports to Action Fraud in 2019/20
- Facebook most popular platform to takeover, followed by Instagram and Snapchat.
- Majority of reports from females ages 20 29 years old



# Social Media Account Compromise

Various distinct suspect motivations:

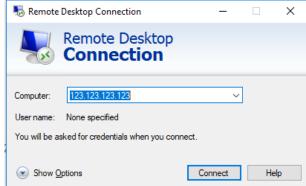
- Personal amusement and challenge
- Financial gain and fraud
- Revenge
- Domestic Abuse (Coercive Controlling Behaviour)
- ID theft
- Facilitating sextortion (typically occurring on Snapchat)
- To promote extremist material
- To facilitate money muling



## **Ransomware Infections**



- Targeting businesses that are wholly reliant on networked infrastructure and have sufficient assets to pay ransoms
- Ransoms have been as large as £4.2 million
- Attackers now steal data before dropping ransomware and hold this to ransom as well
  Remote Desktop Connection



## **Sextortion**

- 200 reports per wee
- Ransoms between
- Contain pseudo-tec
- Vary from webcam and/or phishing em

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You don't know me and you're thinking why you received this e mail, right?

Well, I actually placed a malware on the porn website and guess what, you visited this web site to have fun (you know what I mean). While you were watching the video, your web browser acted as a RDP (Remote Desktop) and a keylogger which provided me access to your display screen and webcam. Right after that, my software gathered all your contacts from your Messenger, Facebook account, and email account. What exactly did I do?

I made a split-screen video. First part recorded the video you were viewing (you've got a fine taste haha), and next part recorded your webcam (Yep! It's you doing nasty things!). What should you do?

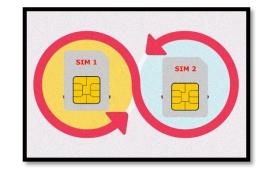
Well, I believe, \$1400 is a fair price for our little secret. You'll make the payment via Bitcoin to the below address (if you don't know this, search "how to buy bitcoin" in Google). BTC Address: **1DbNfCLvwuHAfn3L9SccEpooBgc2KASpxN** (It is cAsE sensitive, so copy and paste it) Important:

You have 24 hours in order to make the payment. (I have an unique pixel within this email message, and right now I know that you have read this email). If I don't get the payment, I will send your video to all of your contacts including relatives, coworkers, and so forth. Nonetheless, if I do get paid, I will erase the video immidiately. If you want evidence, reply with "Yes!" and I will send your video recording to your 5 friends. This is a non-negotiable offer, so don't waste my time and yours by replying to this email.

# Sim Swapping

- Usually High Value targets
- Social Engineered for detailed information
- Convince phone company port the phone number onto a new phone/SIM
- Upsurge in cases, mostly for purposes of bypassing 2FA
- Or gain info to request OTT(P)

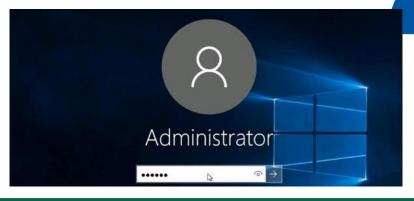




#### **Password Spraying**



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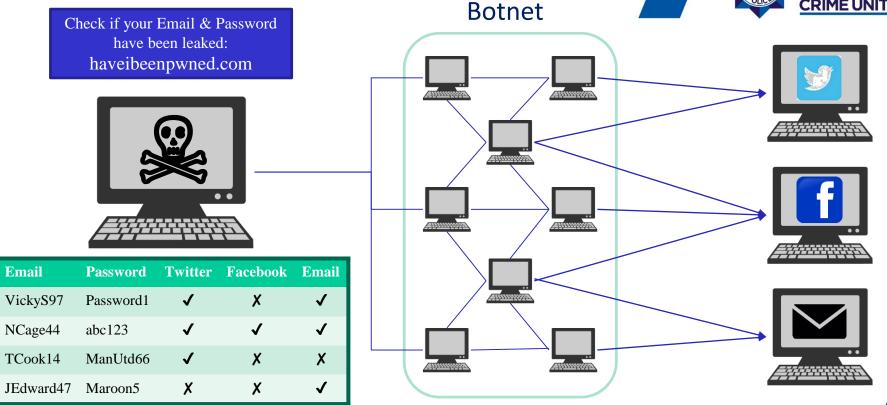


Most used in total	Names	Premier League football teams	Musicians	Fictional characters
123456 (23.2m)	ashley (432,276)	liverpool (280,723)	blink182 (285,706)	superman (333,139)
123456789 (7.7m)	michael (425,291)	chelsea (216,677)	50cent (191,153)	naruto (242,749)
qwerty (3.8m)	daniel (368,227)	arsenal (179,095)	eminem (167,983)	tigger (237,290)
password (3.6m)	jessica (324,125)	manutd (59,440)	metallica (140,841)	pokemon (226,947)
111111 (3.1m)	charlie (308,939)	everton (46,619)	slipknot (140,833)	batman (203,116)

## **Credential stuffing**



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#### **FREE STUFF for Schools**

#### It's the simple things that make the difference

## **Planning & Exercising**



**Decisions & Disruptions** Lego Based Cyber Exercise





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#### Exercise in a box

#### **Does your school have a Cyber Incident Response Plans?**





ON THIS PAGE

- I. Governing boards and senior leaders
- 2. School staff
- 3. School IT: admin teams, procurers & providers
- 4. Other useful resources & advice
- Reporting a school cyber incident

Cyber security should be high on the agenda for any school with a reliance on IT and online systems.

We have produced a number of downloadable resources for everyone working with schools, aimed at:

#### Governing boards and senior leaders



Cyber security in schools: questions for governors and t... Questions for the governing body and trustees to ask sch...



oard Toolkit esources designed to encourage essential cyber enurity

# NCSC Cyber Security for Schools



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- 1. Cyber security in schools: questions for governors and trustees
- 2. School Staff resources for Schools
- 3. School IT: admin teams, procurers & providers
- 4. Other useful resources & advice
- 5. Reporting a school cyber incident



https://www.ncsc.gov.uk/section/education-skills/cyber-security-schools

# Advice to keep you and your family safe online (and your workplace)

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Create a separate password for your email account



Create a strong password using three random words



Save your passwords in your browser



Turn on two factor authentication for important accounts



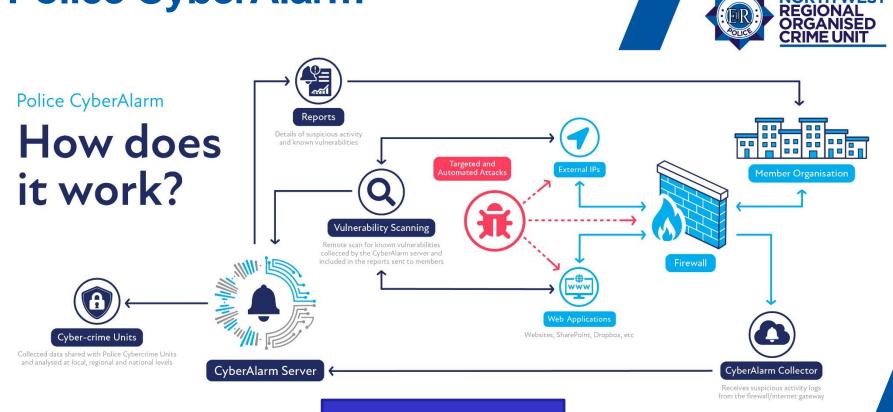
Update your devices regularly (ideally set them to automatically update)



#### Back up important data

## **Police CyberAlarm**

**NORTH WEST** 



CyberAlarm.police.uk

## Reporting

#### **Cyber Crime or Fraud**

If you have been scammed, defrauded or experienced crime (computer based crime) report it immediately to Action Fraud.



#### **Phishing or Vishing**

#### Phishing

If you receive an email you are unsure about, forward it to the NCSC Suspicious Email Reporting Service (SERS) report@phishing.gov.uk

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#### Vishing

If you receive a suspicious text, forward it to 7726 (spells SPAM)

### **Useful Contacts**



Louisa Murphy Regional Cyber PROTECT Officer 0151 777 4393 Louisa.Murphy@nwrocu.police.uk

#### **Keith Terrill**

Regional Cyber PROTECT Officer 0151 777 8273 Keith.Terrill@nwrocu.police.uk

#### **NWROCU PROTECT Inbox**

Titan.Cyber.Protect@nwrocu.police.uk

# **ActionFraud**

National Fraud & Cyber Crime Reporting Centre

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