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Navigating a Ransomware Incident:
The Crucial Role of Cyber Insurance

26 - 28 November 2024 • Riyadh, Saudi Arabia

Organised by Riyadh Alotaibi

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SAUDI FEDERATION FOR CYBERSECURITY, PROGRAMMING & DRONES

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Who are we?

Cyber Specialists of Munich Re

Asbat El Khairi

Cyber Security Consultant at Munich Re
Cyber Security Researcher – Cloud Security

Liam Cattermole-Ward

Senior Cyber Claims Adjuster
at Munich Re

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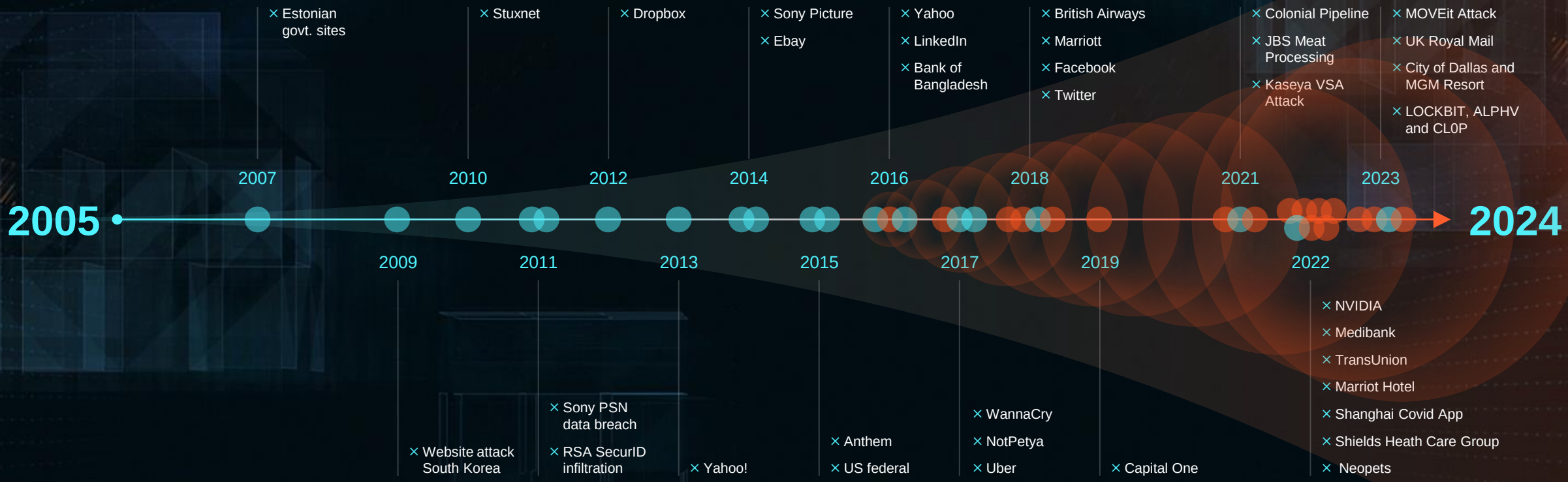
Ransomware on the rise amongst all incidents

Major Cyber Incidents



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What is Ransomware?

Ransomware is a type of malware that prevents or limits users from accessing their system, either by locking the system's screen or by locking the users' files until a ransom is paid.

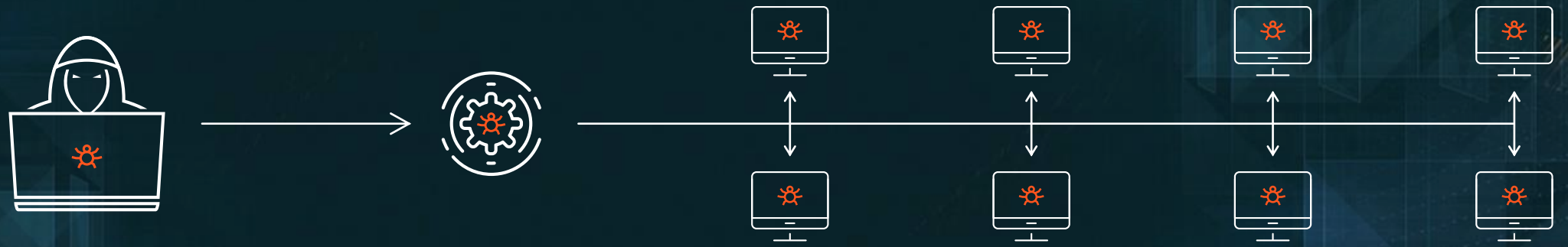
More modern ransomware families, collectively categorized as crypto ransomware, encrypt certain file types on infected systems and force users to pay the ransom through certain online payment methods to get a decryption key.

https://www.trendmicro.com/vinfo/us/security/definition/ransomware

How has ransomware evolved over time?

From “Shotgun” to “Post-Compromise” Approach

"Shotgun" Approach



"Post-compromise" Approach

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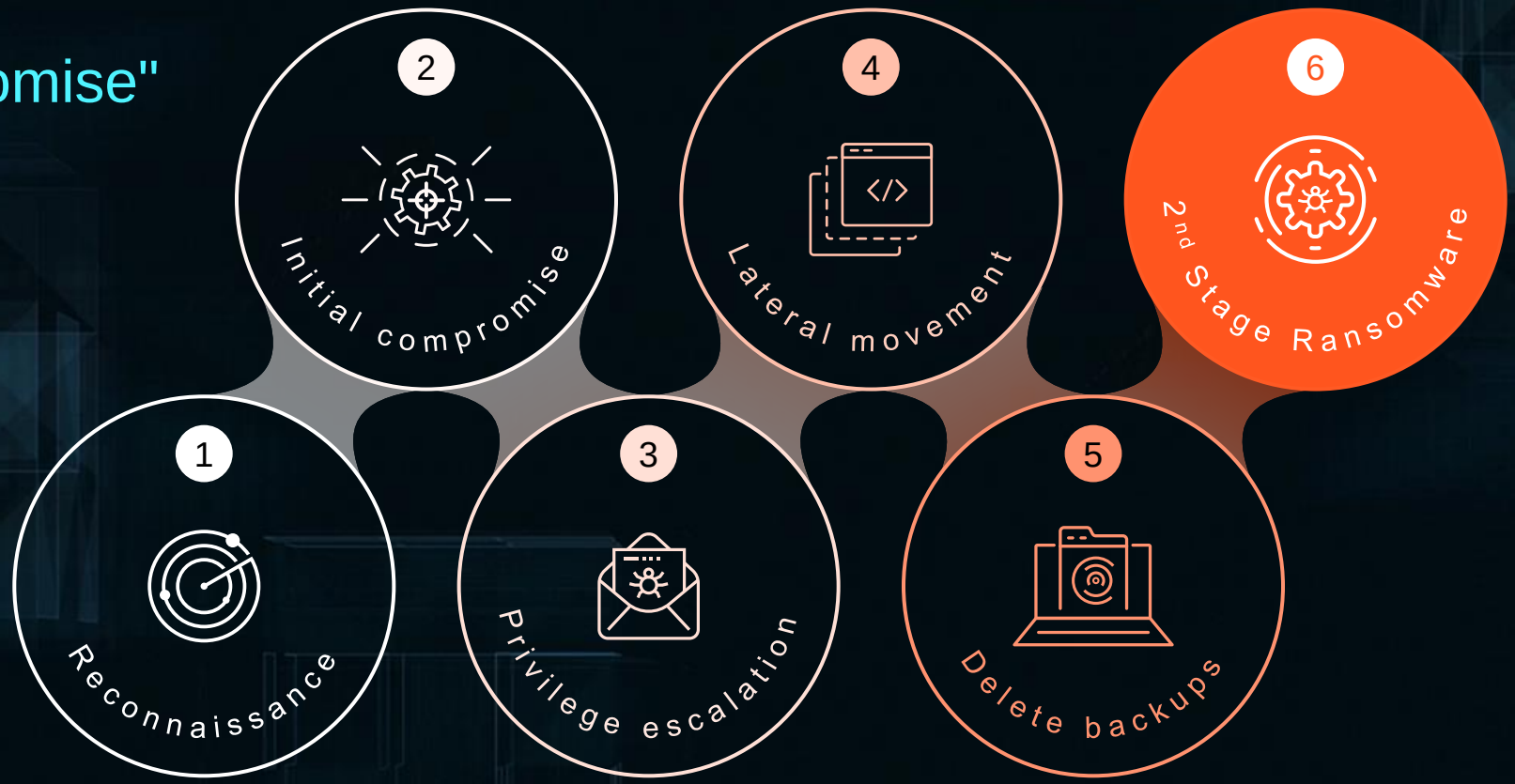
How are ransomware attacks performed nowadays?

"Post-compromise" Approach



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What is the impact of ransomware?

Statistics and noteworthy developments

The average downtime experienced from a ransomware attack is **21 days**[1]

The largest ransom payment recorded is **$40 million**[1]

5,070 ransomware incidents were recorded in **2023**, a **55%** increase from **2022**[1]

Total payments reached **$1.1 billion** in **2023**, up from **$567 million** in **2022**[2]

Affected sectors in 2023 included **healthcare**, **government**, **manufacturing**, and **retail**[3]

Ransomware-as-a-Service (RaaS) has made it easier for **affiliates** to carry out attacks[2]

New Trend: Double Extortion

In 2023, over 50% of ransomware attacks included this double-extortion method

[1] Ransomware Trends and Statistics: 2023 Report". Cyberint, 2023
[2] Ransomware Attacks Surge, Rely on Public and Legitimate Tools". Google Cloud Blog, 2024
[3] 2024 Rapid7 Ransomware Radar Report". Rapid7, 2024
[4] Palo Alto Networks Unit 42 Ransomware and Extortion Report, Zscaler's 2023 ThreatLabz Ransomware Report)

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Navigating a Ransomware Incident

Anonymous Case Study based on Real World Scenario & Sequence of Events

- What is the scope and impact of the attack?
- How was the attack carried out?
- What immediate actions should be taken?
- Has data been exfiltrated?
- Should the ransom be paid?
- What is the communication plan?
- How can future attacks be prevented?

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Who is Global Vintage Hotels?

Some key parameters for the case study

140
Properties Globally

1.5 billion US$
Revenue

65 million
Customers

Cyber policy in place

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What is Cyber Insurance?

A modular concept with multiple coverages

1st Party **Costs**

Business interruption 1

Lost profits and extra expenses incurred due to the unavailability of data and IT systems at the insured or resulting from the IT failure of an external third party (e.g., cloud provider).

Data restoration & recreation costs 2

Reimbursement of costs to restore data and software after a cyber incident.

Incident & breach response costs 3

Reimbursement of cost of responding to an event such as IT forensics, notification, credit-watch services.

Cyber Extortion 4

(Threat of or) loss, leak or destruction of (customer) data.

Includes payment of ransom where legally permissible.

Cyber Crime 5

Reimbursement of loss of funds (e.g., CEO fraud).

PCI DSS 6

Reimbursement for contractual fines and penalties for non-compliance against PCI DSS.

Costs can cover a PCI forensic investigation, PCI-DSS recertification, reissuing of credit/debit cards.

3rd Party **Claims**

Network security liability 7

3rd-party liabilities arising from security events occurring within the insured's IT network or passing through it in order to attack a third-party.

Privacy & data breach liability 8

Covers 3rd-party claims following a data breach relating to confidential information or personal data of a 3rd-party made against the policyholder.

Media liability 9

Cost for investigation, defense cost and civil damages arising from defamation, libel, slander, copyright/trademark infringement, negligence in publication of any content in electronic or print media.

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Day 1

Global Vintage Hotels has been hacked

A typical ransomware note

```
>>>> Your network has been penetrated. <<<<

All files on each host in the network have been encrypted with a strong algorithm. Please do not attempt to restore
from backups, we have also encrypted these too.

We only have exclusive decryption software for your situation, no decryption software is available in the public.

DO NOT RESET OR SHUTDOWN – files may be damaged.
DO NOT RENAME OR MOVE – the encrypted readme file.
DO NOT DELETE readme file.
DO NOT use any recovery software with restoring files overwriting encrypted.
This may lead to the impossibility of recovery of the certain files.

To get info (decrypt your files) contact us at your personal page:
1. Download and install Tor Browser: https://www.torproject.org/download/
2. After successful installation, run the browser and wait for initialization.
3. Type in the address bar: DHFMGRERJG*£$£&%$$JSLS///azhDHE27383”£$.onion

YOU NEED TO CONTACT US WITHIN 48 HOURS AND THE ABOVE LINK IS AVAILABLE FOR 7 DAYS!!!!!!
DEMAND IS BTC 559.49 – USD 35M
WildWalruss
No System is Safe
DATA
AQAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGFDHRHFNDhfinnrobweb///23843””281923dbdaIGEIBHIWFBFOBCSVSBLZBVZLGBGFAIFHOAHIFGBWQ
EIIBIB87638391ibiebdidbisbidb //zz/sdhhrhrrkdhnMxJSV
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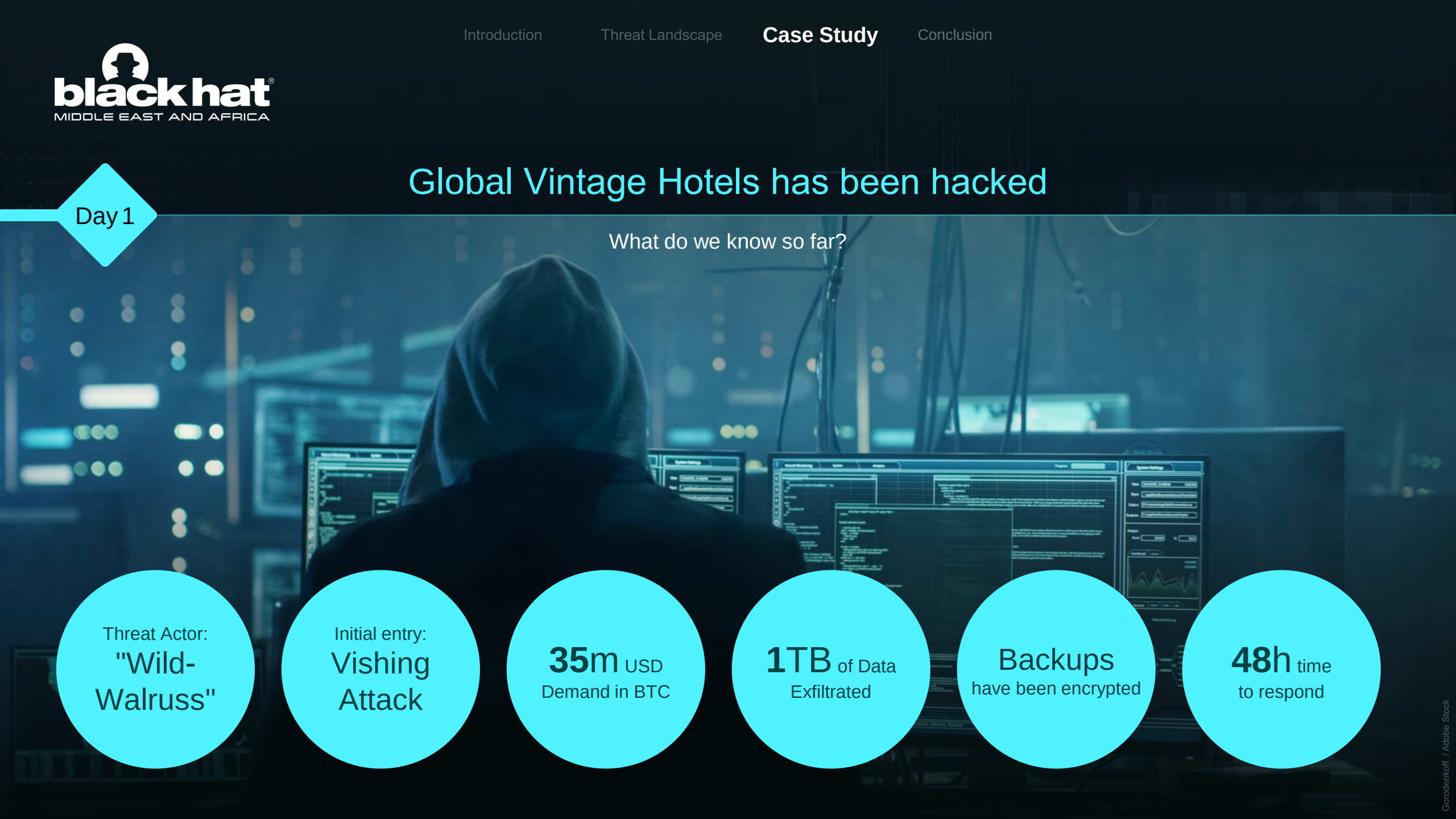
Global Vintage Hotels has been hacked

Day 1

What do we know so far?



Threat Actor: "Wild-Walruss"

Initial entry: Vishing Attack

35m USD Demand in BTC

1TB of Data Exfiltrated

Backups have been encrypted

48h time to respond

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Day 1

Global Vintage Hotels has been hacked

What is the potential impact?

- Website — offline
- Key Cards — offline
- Payment — offline
- Telephone — offline
- Emails — offline
- Restaurant POS Systems — offline
- Payroll — offline

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The Role of an Incident Response Manager

Day 1

Example: Lawyer Led Model

IRM

+

Claims Adjuster

- Digital Currency Wallet Provider
- Credit/Identity Monitoring
- Notification Service Provider
- IT Forensics & Data Company
- Ransom/ Extortion Negotiator
- PR Consultants

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Day 1

Profiling the Threat Actor

What can we find out about their behavior?

What is their operating model?

How many victims and datasets are leaked?

Do they have defined demand patterns?

Are decryptors known or available?

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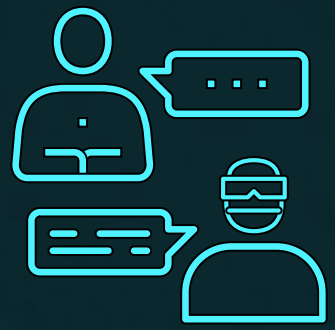
Day 2

Contacting the Threat Actor

Who and when in case you cannot restore from backups?

Do not nominate a decision maker



Don't let the threat actors be in the driving seat

Independent and unrelated to the business

Contact 24 hours after the deadline is usually advisable

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Day 3

Contact with Threat Actor established

How to prepare for negotiations?

"WildWalruss" reiterate the demand of USD 35 million

It is advised to request a proof of life

They have not yet leaked the data, despite the 48-hour deadline

The crisis team held numerous meetings, the board has budgeted a limit of USD 20 million

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Day 4 Day 5

Negotiation phase

How to conduct negotiations?

After proof of life process is complete, negotiation on the price begins

You do not hold Bitcoin as a company, so you need to engage a specialist payment broker

You want to start negotiations close to your given budget (f.i. USD 14,550,000), don't expect many rounds

Make clear all avenues have been exhausted, there is no alternative

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Day 7

Settlement agreement achieved

What to consider and what are the next steps?

Even if Threat Actor fulfills settlement and makes good on the agreement, ultimately you cannot trust them
(double extortion)

Incident Response Costs USD 6 million leading to Estimated Loss of Revenue of USD 70 million

You receive a decryptor via dark web portal after payment
(in our case settlement of USD 17,500,000)

System restoration takes additional 10 days, core functionality restored within 2 days

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System restoration completed

Day 17

Are you now safe and can rest? What happened in reality?

after **18** Months

EU Regulators
launch investigation

after **24** Months

US Regulators
issue USD 10 million fine

after **36** Months

Litigation with
customers ongoing

Key Take Aways from the Case Study

What do you need to remember?

1. First 24 hours is critical
2. Knowing the profile of the threat actor
3. Paying a ransom is not advisable
4. Right person & right time
5. Insurance plays a crucial role
6. Know your business continuity plan

The Role of Cyber Insurance

What influences the decision making?

Benefits of Cyber Insurance

- **Resilience & Compliance**
- **Peace of Mind**
- **Financial Protection**
- **Expertise & Services**
- **Reputation**


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Thank you!
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